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No. 5
AN ENDEAVOR

TOWARDS A

UNIVERSAL ALPHABET,

WHICH SHALL HAVE A LETTER FOR EVERY DISTINCT SOUND AND ARTICULATION
UTTERABLE BY THE HUMAN VOICE;

WHICH SHALL HAVE A DISTINCTIVE FORM FOR EACH LETTER, THAT SHALL RE-
SEMBLE NO OTHER, UNLESS IT IS SIMILAR IN POWER;

WHICH SHALL RETAIN THAT DISTINCTIVE AND ESSENTIAL FORM OF EACH LETTER,
THROUGHOUT THE RANGE OF AND CHANGES FOR CAPITAL AND BODY,
OR LOWER CASE PRINTING LETTERS, CAPITAL AND BODY
ROUND WRITING LETTERS, AND SHORT
WRITING LETTERS;

AND WHICH SHALL FORM THE BASIS OF AN EASY, PRACTICAL SYSTEM, ADAPTED
TO ALL KINDS OF PRINTING AND WRITING.

BY A. D. SPROAT,

CHILLICOTHE, OHIO.

CHILLICOTHE:
PUBLISHED BY THE AUTHOR.

1857.

ADVERTISEMENT.

To Publishers, and friends of the Spelling Reform :

THE change from the present heterogeneous ways of spelling to the phonetic mode, necessarily produces a very considerable change in the Alphabet. Phoneticians endeavor to make this change as little as possible, by using nearly all the Roman letters, and adding enough new ones, or making slight changes in the old ones, so as to fill out the complement of a list of all the sounds. But even this involves a great change.

It is certain that a person having an English education can learn to read Phonotypy, as it has heretofore been proposed, sooner than he can learn an entirely new alphabet, and read by it. Now, is this advantage (a superficial and temporary one), and any other advantages that can be named, which an emended Roman alphabet may have over a new one (an AMERICAN ALPHABET), of sufficient importance to countervail the serious disadvantages connected with it? This is the question which I wish to bring emphatically before you. Please turn to numbers 5, 6, 7, 8, and 9, in the body of this work, for the reasons why we should have *but one alphabet*; and suffer me to say here, that any enterprise of this kind which employs more than one alphabet, however successful it may be in its inception, *will not stand the test of time*. Why, then, put up with amendments? Why not make the reform a thorough and permanent one, at once?

While this work was being put in type, I have become aware that a variation of Pitman's Phonography is taught in England, called Phonical Stenography. The Printing Schemes, as now proposed in England and America, are variant, and have been changing ever since Phonotypy became agitated. The language of the two countries not only should, but *must* be the same; and not in its spoken form alone, or written form alone, but in both. Nothing, therefore, in this printing and writing reform is yet fixed; and although considerable outlays in types and books have been made, no one can reasonably hope or even wish for the success of his scheme, when satisfied it is far behind what is easily attainable.

It is said that there must be a time when changes shall cease: when we must settle down on some plan, and keep to it. True; but we must first *have a plan*, and one on which the great body of those who speak our language can be made to settle.

I claim superiority for my system, on the following points:

1st. I claim that my tables of vocal and consonant elements are

either perfect, or, if they should not be deemed so, that they are nearer the truth than any heretofore proposed.

2d. I claim that my Alphabet (the table of forms appropriated to the elements) is by far the best and most practical one yet devised for all purposes of printing, and round or long hand writing; and this without reference to its connection with brief writing. For reasons for this superiority, see Nos. 8 and 9.

3d. I claim that my Brief Writing, in its recording stage, is superior to Pitman's, or any other, in its adaptation to all purposes of short hand, save that of reporting, by showing the exact sounds of words, in a plain, lineal, and easy manner, not depending on thickening the letters, or on minute turns, which cannot be shown with a pencil, or dull pen. See No. 150, and plate No. 3.

4th. I believe that my system of writing, in its reporting stage, is, or can very easily be made, equal, if not superior, to Pitman's, even as to brevity. By brevity I mean the quickness with which a word can be written, and not the shortness of the strokes. As Mr. Pitman's Phonography is considered to be the shortest and best now known, I have made a comparison between his and mine, in plate No. 4. Many words can be written shorter by his system than by mine, and *vice versa*. I think that any regular piece of composition, containing a dozen lines or more, where all the words are to be written out, or plainly and separately designated, can be done by my system shorter than by his. See No. 151.

5th. I claim that my system, as a whole, although it may be imperfect, is still integral, and far in advance of any yet proposed. I solicit investigation of the above claims, by those who are competent to judge.

This little work has cost me much labor. I offer it to the public free of copy-right, feeling that I have but little pecuniary interest in its success. But I do feel a very considerable interest as an author and philanthropist, in having its merits and demerits fully canvassed. If any one shall put forward a better system, or shall make improvements in mine, I shall wish him God speed.

The recital of the foregoing claims may appear arrogant and egotistical. I have made them with the view of eliciting investigation, and thereby inducing some publisher, or some society, after examining my system, to undertake its advocacy, in a monthly paper. To do this properly, will involve a considerable outlay for matrices for the new type, &c. The journal should receive and publish suggestions and corrections from all who felt interested; so that, before the final adoption of any system or plan, the relative merits of all should be thoroughly discussed, and the best one rendered as perfect as man can make it. I can spare neither time nor money to conduct these matters, and must leave them to others.

AMASA D. SPROAT.

Chillicothe, Ohio, January, 1857.

AN ENDEAVOR

TOWARDS

A UNIVERSAL ALPHABET.

INTRODUCTION.

PROMINENT among the improvements soon to come into use, will be the substitution of a new, or at least of a corrected and extended alphabet, for our present one; and the consequent abrogation of our abnormal ways of spelling. Subsequent to this, (it may be long in the future,) will be the regulation to some extent, of our language. That art by which all other arts are made known and their knowledge perpetuated, and by which, next to reason, we are distinguished from brutes; the medium of our social intercourse, and thereby, in a great measure, of our civilization and happiness; and above all, the medium through which the Word of the Lord is communicated to us, has been, as respects any sophical amendments in its construction, or attempt at any, almost entirely neglected. It has been left to tumble into shape, to drift, to stretch, as ignorance, chance, or caprice, might sway it.

2. Our own loved English, rough, irregular, redundant, and defective as it is, we would not exchange for any other tongue on earth, either ancient or modern. But it has faults which need correcting, such as pronouncing different words alike, and irregularities in tenses; and probably it has a few deficiencies which should be supplied. We do not want the machinery of Greek or Latin conjugations and declensions, but we think that short terminals to verbs to note their moods and tenses, and to substantives for their numbers and genders, might be employed

with considerable advantage. Endings might be arranged so as to show the parts of speech, and give definiteness to the meaning, as -ing, -ed, -ly, -tion, -ness, &c. do now; and so as frequently to enable one word to express what is now done by several. Such innovations being based on a few simple rules, might be learned by any person in a few hours.

3. The regularity, beauty, and power of the Greek and Latin languages, their grammatical construction, particularly in their declensions and conjugations, prove that they were set in order by men of science. Many of their radical words were drawn from other tongues; some might have sprung up fortuitously; yet no chance convention of children, or ignorant barbarians, could have produced the harmony and order we see reigning there. Their writing too, we have every reason to believe, was strictly phonetic, except that they had two or three double letters.* How sadly have we departed from this plain and simple way of expressing speech on paper! What years of toil does this departure cause our youth to endure!

4. No living language is stationary. Ours is not, and can not be made so; therefore improvements ought not to be so much regretted, or opposed simply on account of the change. I deem it impracticable in the present state of religion and science, for men to form a good philosophical language; a perfect one would be out of the question; and therefore I would correct our own as a man amends his life, which is not by jumping at once into a new one, but by gradually reforming the present.

5. But not so with improvements in the Alphabet and mode of spelling. Here the change, when made at all, should be a thorough one. It should leap at once from the present deficient alphabet and heterogeneous modes of spelling, to the most perfect means of recording words that can be devised.

* The rule adopted by our Latin grammars, of pronouncing *c* and *g* *soft*, as it is called, before *e*, *i* and *y*, and pronouncing *æ*, *œ* and *e* alike, has always seemed to me absurd. We have no evidence that the Romans ever perpetrated any such jumble; but have every reason to suppose that with them *c* and *g* were always hard, and that their single vowels indicated simple sounds, and when two vowels came together, that both were sounded and formed a diphthong.

6. To write speech by having and using a separate letter for each and every distinct articulate sound, or element spoken; to always express each element in writing or printing by its own proper letter, and by that alone; and to set down the letters in the same order in which the elements are uttered, are principles so plain, so natural, so easy to be learned, and which dispense at once with such an immense amount of disadvantage pertaining to the present system of spelling, that they must ultimately prevail.*

7. Writers on Phonetics, as far as I have noticed, have taken great pains to depict the advantages of Phonetic spelling over the common orthography. They, however, adopt the present letters as far as they go, adding a few new ones, or new parts to old ones, to complete the list. Two reasons are assigned for this course: The first is they wish to retain the old letters, so that the present generation may be able to read the new way with little trouble. Grave as this consideration may look, it is really but a slight one. A man can learn a phonetic alphabet which is altogether new to him, and learn how to read with it in a few hours; a labor insignificant in comparison with even the slightest advantage in an alphabet intended to spread over the world, and endure for ages. There is no advantage to the learner, in retaining a letter as to its shape, and changing its character. We may retain the letter e, but when we restrict it to one of the many sounds it now stands for, we in fact make a new letter of it. I have found it occasioned me more trouble and more labor to learn and remember that a particular sound belongs to the printing a, and another particular sound to the written form, *a*, than to attach those particular sounds to new characters, because in this latter case the other sounds of the letter a are not constantly occurring to my mind to bother me. The other reason for retaining the old letters is that the old

* Although our table of elements and the characters representing them, are to be in strict conformity with these precepts, yet a departure from them is convenient in common printing and writing, and even necessary in brief writing, so far as to combine two or more elements which are frequently associated in words, in one letter. Such letters will be called double, or composite letters.

stock of types may still be used instead of casting new ones. This objection, too, dwindles away when it is considered that a reform of this kind can not be adopted at once. The present type will continue to be used, and more will be cast probably for centuries yet.

8. The forms of the Roman and Italic letters, (g excepted,) are beautiful. The Italic give the idea of gracefulness and delicacy; the Roman that of firmness and strength. Placed in words and sentences they form a writing surpassing all others in its regular and noble appearance. Why not adopt them then? Because: 1st. I wish to dispense with tailed letters, or projections below the line of writing. 2d. I wish all the stemmed letters—those rising above the upper line—to be vowels, so that they may be distinguished thereby from the consonants, and the writing be read easier. Too great uniformity mars the ease of reading, as is seen by the greater difficulty of reading a sentence when it is in capitals, where there are no stems or tails for the eye to catch at. This object is attained by having the vowels for the common (or body) letters uniformly taller than the consonants. Letters answering to our capitals must all be of the same height. 3d. I wish, as far as convenient, to conform the shapes of the letters to their classification; thus showing a connection between p and b, f and v, &c., by the similarity of their forms. This relationship will be better understood by referring to my table of analogical forms of the consonants, paragraph No. 86. Though this feature is very desirable, it can be but partially developed. It must give way to others of more practical importance. 4th. I wish to have the letters as simple as they well can be, not giving them unnecessary or unmeaning parts; so that they may be more easily written, and more compactly put together, and so that the eyes may be less fatigued in reading them. Although a reader can gather words with his eye, as they are now written, much faster than he can speak them, yet if they were written phonetically, and with more simple characters, he could gather them still faster and with far more ease. This will be acknowledged by noticing how much easier and quicker a number written in figures can be comprehended than when in words. Hence, what I shall call short writing can be read easier by those acquainted with it than

the present print. Several of the Hebrew letters are so very much alike as to make it difficult to distinguish them. The Roman letters are free from this fault, yet with some of them simplicity and distinctiveness of form, whereby the eye can apprehend them easily and quickly, are made subordinate to a fine rounded appearance. And 5th, and lastly, I wish to have a single alphabet; that is, one series or set of letters, which shall constitute a complete table of all the simple elementary sounds and articulations; each sound and articulation having its own appropriate letter; and these letters so formed, that they, or their analogues, shall serve for all kinds of printing and writing. The shapes of the letters and their appendages, must be formed, of course, so as to meet all the different purposes and exigencies of printing and writing; of capitals, of common letters, of short hand letters, &c. The intention is, that throughout all these changes, each letter shall, as far as possible, retain its distinctive form.

9. The disadvantage and confusion, and consequent folly, of having to learn and use three alphabets, or, in other words, of having three or more entirely different shaped characters to signify the same letter, as we now have for capitals and small printing and short hand letters, must be obvious without argument. All the advantages of capitals, italics, &c., are easily secured by means of projections on the corners, and small modifications in particular parts, by the leaning of the letters, and by change in their thickness; while their characteristic or essential forms are unaltered.

10. To devise forms which shall best fulfill all the foregoing requirements is a matter of great labor. Until quite recently I supposed I was the first to attempt it, and I can not suppose my attempt is not susceptible of improvement. Yet I must beg of any proposer of new forms, that he will previously consider well his scheme in comparison with mine, by taking his forms through the whole range of printing and round and short and brief writing. The organic forms of the printing letters must be the same as the writing, and these must be such as can be easily and quickly written with a pen. And as the short and brief kinds of writing will be principally used, I have arranged the shapes with especial regard to them. Indeed my present short con-

sonants, with a few exceptions, are the same as those in a breviscriptive scheme I had formed for my own convenience in A. D. 1822. In fixing the forms of my letters, instead of avoiding the roman, I can show that in my Table of 28 simple consonants, (No. 104,) all but four—hc, h, hl and l, in the fourth column—are the result, as to their shapes, of carrying out into methodical arrangement the present forms.

11. Mr. Isaac Pitman, author of a "Manual of Phonography," and Mr. Alexander John Ellis, author of "Essentials of Phonetics," each by far the most complete work of its kind I have seen, deserve great praise for their sterling productions, and their efficient and untiring exertions to bring Phonetics before the public. I must refer the reader to the "Essentials" for the configurations of the organs in forming the letters, for full lists of them, and nice discriminations between them, for lists of the elements belonging to the principal European languages, for an ethnical alphabet, &c., &c. I intend to describe here merely what I consider necessary to a full understanding of the principles of my alphabet.

SPEECH.

12. The substance of human speech is the breath,—air expired from the lungs. Breath has relation to Truth, and to Life. It is or should be known, that the original words which are rendered Holy Ghost and Holy Spirit in the New Testament, literally mean Holy Breath. This Holy Breath in its descent from Jehovah, assumes a form and meaning apprehensible by men and angels, and is then called the Word; answering in man to the transition of the breath into sound, and the modifications of that sound so as to form speech. It would seem that inarticulate sound and singing, and probably the vowels also, have reference to the affections; while the consonants are representative of what is intellectual. The letters formed by the lips and teeth, being the most outward organs, seem to denote the more external truths and principles; while the palatals and gutturals, being produced further down the mouth, signify those principles more internal. Hence these letters enter into the scripture names which involve holy things. The aspirate H, which is breath without sound, or articulation, being

breath heard simply as breath, signifies To Be, or Life itself. The Jews write the name of the Lord by a simple Π , (h;) and the Arabic and Mohammedan name Allah is Al-ah, that is, *the h*. The h is twice inserted in the most holy name Jehovah. The other two consonants in this great name are j, or more properly y, a deep sounding guttural, and v, or properly w, the most outward sounding labial; the two signifying the first and the last.

TONE, OR LARYNGAL SOUND.

13. Sounds are vibrations of the air. They are heard by their striking on the tympanum of the ear, whence report of them is carried through the auditory nerve to the brain. We are now to consider those sounds only which are emitted from the human mouth. These are produced by the vibrations of the vocal chords, or ligaments of the larynx, while air from the lungs is passing through them. This sound is sometimes called phonation; and when modified by the organs of the throat and mouth, it is called the voice.

14. Except the noise of breathing and of whistling, and a few slight gurgling sounds made by inspiration, all the vocal sounds are produced during the expiration of air from the lungs. For a description of the lungs, the bronchiæ, the trachea or windpipe, the larynx and its appendages, and the vocal organs generally, and their operation in the production of sound, I must refer the reader to works on Anatomy and Physiology; for the theory of sound to works on Acoustics. As it is difficult to describe intelligibly the formation of consonants and the sounds of vowels, I shall assume those we have in our language to be already known, and attempt the description of such only as are foreign to it.

15. Laryngal sound is modified by the expansion and contraction of the vocal chords, thereby forming different tones or notes in music. These tones have quantity, (intensity, or loudness,) and quality or timbre. It is this last which distinguishes one person's voice from another's. By this the ear instantly distinguishes between the sound of a wind and a stringed instrument, or between a note made by a flute and the same note made by a fife. It is from a nice appreciation of this quality, that one violin will command twenty or thirty dollars, while another, whose appearance is just as good, will sell but for two or three.

16. A person's natural tone of voice is the key, or pitch in which he usually speaks. If he did not vary this pitch his speech would be *monotonous*. Variation upwards is called the rising inflection; downwards the falling inflection, or cadence. The latter is used at the end of a sentence; the former when a question is asked. Much of the meaning as well as beauty of speech depends upon intonation, accent, and emphasis; all of which are due to the regulation by the glottis, of laryngeal sound and its force.

17. Though tones and forces enter so largely into the expression of speech, we have very imperfect ways of noting them at present. For modes of expressing force, see Nos. 25, et seq. Tones affect vowels and sounding consonants, and may be considered as belonging to words rather than to letters. It will not do to encumber letters themselves with parts or marks to indicate tone. We scarcely ever want to trouble ourselves about it in writing, otherwise than what the pauses and other characters in use for other purposes will indicate.

18. All the pauses except the comma and interrogation point, denote a cadence. The interrogation point always marks a question; and this is generally made by the rising inflection. But sometimes an emphatic word is set in a high tone, and the inflection runs downward instead of up; as, *will* you do it? In such cases the emphatic word should be noted. Whether the question begins with a low tone and runs upward, or the contrary, it should have the reversed interrogation point (‡) at the beginning, to give the reader due notice of it, as well as the common point (?) at the end.

19. It may be well to have a few points to signify tone and inflection exclusively. A triangular dot immediately preceding a word placed at the height of a capital letter, thus ∇, will indicate a high key or pitch of voice for that word; placed midway between the high key dot's place and the bottom of the line, (thus ▽) it will indicate the middle key; and at the bottom, (thus ▴) the low key. A triangular dot with a tail to it, the head up, (thus ∇) will show the rising inflection, indicating that from that point to the end of the sentence the tone of the words runs upwards; and with the head down, (thus ▽,) the falling inflection, or running downwards of the tone is shown.

PRODUCTION OF SPEECH.

20. The parts concerned in the articulation, (jointing,) of sound, commonly called the organs of speech, are the palate, uvula, fauces, nasal fossæ, tongue, teeth, gums and lips. By these organs laryngal sound and breath are variously reverberated and obstructed, (articulated,) so as to form speech. Whispering is articulation of breath without voice. In whistling the sound is produced in the mouth instead of the larynx. Sighing, crying, and laughing, form no part of artificial speech, and need not be described here.

21. The Elements of Speech naturally divide themselves into Sounds, called Vowels,—vocales, from vox, the voice;—and Interruptions of Sound, called Consonants,—consonantes, sounding with, because, as was supposed, they can not be uttered by themselves, but require a vowel to be sounded with them. This was a mistake, for letters like *z* can be uttered by themselves; and indeed we frequently hear a whole syllable so uttered, as in the words *opened*, pronounced *op'n'd*; *humbled*, pronounced *hum-b'l'd*. The word consonant has been long in use to signify any letter which is not a vowel, and as I shall need a word of this signification, I shall so use it.

22. Our letters which represent these elements of speech are still but articles or joints of speech. The filling up, or transit of voice from one letter to another can not be written. Our vowels are stand points, and vague ones too, among the indefinite shades and varieties of tone and sound which the vocal apparatus can send forth. All these will run into each other: many consonants will run into each other. Hence it is evident that letters, (or written language,) can only point out the principal landmarks of speech; and that to have as perfect an agreement as possible between them, we must make our speech conform to the usual pronunciation of the letters, as well as make letters to represent the elements of speech.

OF VOWELS AND SOUNDS.

23. To vowels belong *tone, timbre, sound, loudness, and length*. I have spoken of the tone and timbre. For want of a word having a more definite meaning, I shall use the word *sound* to signify that quality which distinguishes one vowel from another; thus *a* has one sound, and *e* another.

24. As in the formation of tone in the larynx there is produced a gamut or scale of notes, so there seems to be something analogous to it in the re-formation or re-verberation of that tone in the mouth, producing vowels, or distinct sounds. Emerging from *y* where the proceeding breath is too closely pent up to produce a clear vowel, and its hiss in passing forms that consonant, the first pure sound uncombined with hissing is *ē*. By gradually enlarging and drawing back the cavity of the mouth we make a continuous change in the sound until we get to *ōō*, which is the last and lowest pure vowel. The scale is then shut off by the lips in the consonant *w*. Distributed along this diapason, at about equal intervals, are the vowels of our language, and of others. Are these intervals arbitrary? Or are they in accordance with some law of nature, as are the intervals of the notes in music? I have not detected any such law, and suppose the particular sound of each vowel, as well as its distance from another, to be arbitrary, that is, fixed by custom alone. My remarks on particular vowels, their number, &c., is deferred to another place. See No. 39.

ACCENT, EMPHASIS, QUANTITY, LOUDNESS OR INTENSITY
OF SOUND.

25. We have a rule which says, "Every English word of more than one syllable has one of them accented." In long words, besides the principal accent, there is a subaccent on another syllable; and in a few words even a third accent. The accent then with us forms an important part of our pronunciation; and should be noted in print; at least there should be a way to express it when we choose. Mr. Ellis says, "The misplacement of an accent destroys the whole character of an English word; and as the position of the accent is not determinable by any precise

rules, and has even varied in the course of time, as words passed from learned to conventional use, there is hardly a part of English pronunciation which is more difficult to ascertain. In the usual orthography, the accent is never marked, and the consequence of this neglect is, that few who are not Englishmen place the accent aright; and many Englishmen mistake the place of the accent in any rather uncommon word."

26. Accent is the distinguishing one syllable of a word from the rest by a greater stress of voice. The marking one word of a sentence from the rest in the same manner, is called *emphasis*. I would make a distinction, however, between what may be called accented words and emphasised or emphatic words. In common speaking, the words of a sentence are frequently huddled together as if they were but one word; and one or two of them are accented without any apparent reason for it. In saying "It was laid upon the shelf," we put a stress on laid and shelf, or rather, a half stress on laid and a whole one on shelf, hurrying over the other syllables, even the accented one in upon, as so many unaccented syllables. Here shelf may be called an accented, or accentuated word; but not an emphatic one; and laid a half accented word; the others, unaccented words.

27. It has been questioned whether accent belongs to vowels exclusively, or to vowels and consonants, or to syllables. When in the accented syllable the vowel is long, the accent is evidently on it; when the vowel is short, it is what has been called a *stopt* vowel, and the accent or stress seems to be shared by the stopping consonant. There is no doubt that tonic consonants can be accented; and atonic ones can be attended with greater force of breath, which is accent to them. But the idea entertained by some, that the consonant alone is accented when the vowel is a stopt one, appears to me erroneous. Supposing a vowel and one or two or three consonants coming together, should all be considered accented, we cannot afford to give them more than one accent mark; and to me it appears all sufficient to place that mark to the vowel. Placed there, it can as well stand for an accent on the whole syllable as when placed at the end of it.

28. Phoneticians have accent rules, and place the accent mark only to such accented vowels as are exceptions to the rules. But

the rules are complex and the exceptions are many, and the same necessity exists for a full assortment of type to mark the exceptions, as where the accent is always marked. A prominent full spoken monosyllable should also have the accent mark.

29. An obvious way of designating accent is by doubling the thickness of the vowel post, the upright part. In writing, the thick vowel post can be expressed by a heavy downward swell, without any extra trouble. The half, or subaccent, would be expressed by swelling the upper part only of the vowel post; and the unaccented vowels by thin posts. An analogous way of expressing an emphatic word is by putting it in heavier faced type. The German plan of spacing the words is a convenient one.

30. In my list of vowels, No. 40, the letters are duplicated to distinguish the long from the short; the short letters being narrower. I have made them all uniformly with thin posts. To mark them for accent too, by giving them thick posts as well as thin, would require a re-duplication, or making four letters for each sound, which is entirely too many for convenience in printing. In English there are but very few words, (as *female*, *eighteen*, *plumb-line*;—they are mostly compound words,) where two long syllables come together, and where a long vowel is unaccented; so that we may assume as a general rule that all long vowels are accented. The first and third sounds when short are always unaccented. So we have but eight short simple sounds in English, which would require doubling to show accent. But we do not wish to increase the list of letters even by eight; and as an alphabet for all languages must be capable of showing accent any where, I recommend the employment of accent marks for this purpose, as follows:

31. The mark shaped thus, , placed high up, immediately before a *vowel*, will show a half accent on that vowel, or on the syllable which the vowel is in; and the double mark, thus , will show a full accent. The single mark placed lower down, thus , before a *word* shows the word to be accented; and when double, thus, , it shows the word to be emphatic.

 A true representation of speech requires that the accent on every word, even the stress on monosyllables, should be shown; and if the vowel types are re-duplicated to mark the distinc-

tion between accent and non-accent, this showing will not only be easy, but must be done as a matter of necessity, as much as a word must be spelt right from necessity. Such a representation, I believe, will ultimately be adopted; but it is asking too much to go into it now. Instead of showing the stress by swelling a part of the letter, putting a dot in a vacant place on the type so as not to increase its width, may be preferred.

LENGTH OF VOWELS.

32. Two lengths only, the long and the short, have generally been acknowledged in English. But from the unsettled condition of our speech we sometimes find a vowel which it is difficult to classify.

33. Messrs. Pitman and Ellis make a division of the short sounds into *brief* and *stopt*; the former occupying unaccented syllables, and ending "smoothly," the latter ending "abruptly," being stopt, or cut off by a consonant following in the same syllable. All their stopt vowels are short, and each one as they suppose, has its mate among the long ones. They seem to consider the distinction between the stopt and brief vowels as of more consequence than between brief and long, as their six characters for long vowels stand for brief ones too, depending on the accent to determine to which class they belong. Their three remaining brief vowels, being very seldom used, are suffered to take stopt vowel letters, so as to keep the number of characters as few as possible.

34. I feel a diffidence in raising a point against men who have exhibited so much keen and careful discrimination, but it certainly appears to me that where a long vowel is succeeded by a consonant in the same syllable, it is as fully stopt or shut off by that consonant as a short vowel can be; and that when a long vowel ends a syllable it expires quietly as much as a short one. The difference between "expiring quietly" and "stopping" seems much more theoretical than practical. As some of my readers may not be acquainted with their system, I will take as an example the word *indivisibility*, instanced by Messrs. Andrews and Boyle in their "Phonographic Class Book," displaying Pitman's Phonography. They say, very truly, that "the beginner would be very likely to use the small dot, [short i] for every syllable." But they instruct him that the second, fourth, sixth and seventh syllables are to be written with a heavy dot, (that is, e long.) The reason is this: the word is divided into syllables, thus, in-di-vis-i-bil-i-ty; the vowels ending syllables are brief, the others are stopt; and at the end of each brief vowel

a "dying away" or short halt is made, or should be understood before commencing the next syllable. There is no actual halt made between the syllables, and a change may be made in their division without producing the least change in the pronunciation of the word. Notwithstanding the "initial and final effects," the syllabication of letters does not change their character; and it is a mere bother to make a circumstance or situation in which a letter may be placed an inherent quality of the letter itself. As the old distinction of long and short appears to me the more practical and apparent, I shall adopt it.

35. It may appear to the English ear that some sounds, as *ē* and *ā*, are naturally long; and others, as *i* in *pin*, and *e*, in *met*, naturally short and abrupt; and that the long and full sounds are what may be called *stationary*, and the short ones *transitory*, or mere half-way places. We cannot pass from *ē* to *ā* without going by *i*. Let any one utter *ē*, and continuing the voice without faltering, proceed slowly to *ā*; he will come to an intermediate place, or sound, which is neither *e* nor *a*, but which has precisely the sound of *i* in *pin*. In the same manner he will discover the sound of *e* in *met*, to be between the different sounds of *a* in *cane* and *care*. So also is short *u* between *au* and *ō*, etc. As these short sounds are generally stopped in English words, they do not appear to have the same stationary character as the long and full ones. I believe this appearance arises from our being constantly accustomed to hear one class of sounds pronounced long, and others short, and not from any inherent quality of the sounds themselves. The French make their sound in *même*, which is nearly our *e* in *met*, long; so also is their sound in *deux* long, which differs slightly from our short *ū*; and I have no doubt these sounds appear to them as stationary, as do *ā* and *ō* to us. I conclude that nature establishes no determinate sounds, or intervals, or lengths for the vowels.

36. The length of letters,—the time occupied in pronouncing them,—will vary according to the rapidity with which words are uttered. The relative lengths are somewhat as follows: A long vowel is from once and a half to twice the length of a short one, and from once to three times the length of a consonant. In the word *stray* the vowel is about as long as the three consonants. The word *steam* is easily spoken in half a second. It may be divided, as to time, into three parts, thus, *st-ē-m*. This makes *s* and *t* each one-twelfth of a second long, and the *e* and *m* each one-sixth, and indicates that short vowels are about a twelfth. A considerable portion of these times are taken up in changes of configuration,—in passing from one letter to another.

37. I have noticed foreigners sometimes make longer vowels

than we do. The prolongation of a sound is easily noted on paper by adding letters. Thus a sesquilength vowel is shown by putting a long and a short letter together; a double length sound by two long ones, etc. The consonants, which, by some, are called continuants, can likewise be drawn out; and if so, may be represented in a like manner.

DEFINITIONS.

38. A simple vowel is one whose sound remains the same throughout its utterance; or, what is the same, one which is uttered while the position of the organs of speech remain unaltered.

While uttering a compound vowel or diphthong, the position of the organs change, and consequently the sound changes.

A pure vowel is one whose utterance is clear, unattended with hissing, roughness, or rolling; one free from any peculiarity arising from the approach of the organs toward a consonant.

An impure vowel is one whose sound is modified by the near approach of the organs toward a consonant, whether the consonant is heard in the sound or not.

What is called a nasal vowel is one which is uttered while a part of the sound from the larynx passes into, or through the nostrils.

OF THE ENGLISH VOWELS.

39. Orthoepists are not agreed as to the number of simple vowel sounds which our language contains. The number usually reckoned before Phonetics became agitated, was twelve, as heard in

1	2	3	4	5	6	7	8	9	10	11	12
eat,	in,	age,	end,	at,	art,	on,	all,	up,	old,	full,	poor;

and four diphthongal sounds as heard in *pine, tune, noise, town*. They were divided into long and short; the 1st, 3d, 8th, 10th and 12th simple, and the diphthongal sounds being considered long, and the others short.

We are just now in search of pure and simple sounds only, and of these, mature observation has convinced me that we have but ten which are clearly distinguishable by the sound alone; and that all these, with two exceptions, are both long and short. My scheme is shown in the following table. The new characters in the table are the letters to represent the sounds of the *Italic* letters in the words opposite to them;

No. 40.			
<i>Number.</i>	<i>Form.</i>	<i>As heard in.</i>	<i>French.</i>
1 Long,	ɹ	eve, deep,	île, vie,
1 Short,	ɹ	evoke, depart,	fini,
2 Long,	ɹ	(pitying,)	
2 Short,	ɹ	it, pity,	
3 Long,	ɹ	aim, rave,	fée, j'di,
3 Short,	ɹ	amuse, ravine,	sujet été,
4 Long,	ɹ	(e'er,)	meme,
4 Short,	ɹ	end, sell,	bec,
5 Long,	ɹ	are, grasp, branch,	faire,
5 Short,	ɹ	at, carry,	mal,
6 Long,	ɹ	art, calm, father,	dame,
6 Short,	ɹ	market, barrow,	madame,
7 Long,	ɹ	all, warm, loss, slaughter,	patre,
7 Short,	ɹ	on, got, borrow,	pas, mol,
8 Long,	ɹ	learn, nerve,	
8 Short,	ɹ	up, sun, furrow,	(peu ?,)
9 Long,	ɹ	old, hole,	eau,
9 Short,	ɹ	obey, whole, only, hollow,	mot,
10 Long,	ɹ	ooze, move, pool, too,	joute.
10 Short,	ɹ	full, put, foot, to,	

41. The first sound in my scheme is probably always long when accented, and when in monosyllables; in unaccented syllables, as in the examples, it is short. It is true the e, in such cases, is frequently sounded like short i; thus, demand is pronounced as if written dimmand; but good speakers give to the vowel the same sound as e long; that is, it is e short, and not i short. The Scotch generally give this sound first short to i and y in such words as ability, city; and the short i in French has always this sound.

42. I believe we have no word in which the second sound is long. We make it pretty closely by putting two short i's together, as in carry^{ing}, rally^{ing}; but in these cases there is, theoretically, an intermission of sound between the vowels, so as as to break them into two syllables, and therefore they should be written with

two short i's, and not one long one. I have noticed Germans make this sound long in asking for myrrh.

43. The third sound, like the first, was formerly thought to be always long, but like it, it is short when ending unaccented syllables, as *lament*, *Sunday*. We have properly, as I think, no words wherein the fourth sound is long, unless the one in the table. Some modern Phoneticians, however, have provided it with a character to be used in *earth*, etc. That sound long is common in French; and there may be some districts in England where it is given to *care*, *pair*, etc.

44. Mr. Joseph E. Worcester, in his Dictionary, among other sounds for a, has one for *fat*, *man*, *carry*; another for *fare*, *pair*, *bear*; and still another for *fast*, *branch*, *grasp*. As far as I have noticed, people very generally speak these words all alike, as to the sound, only making *fat*, *man*, *carry*, short, and the others long. The difference in length has been mistaken, I believe, by many orthoepists, as it has been by myself, for a difference in sound. The a in *fat*, *pan*, and *carry*, is short; in *fast*, *pant* and *care* it is the same sound lengthened. There are a few, however, in this country, and I suppose more in England who do pronounce *grasp*, &c., a shade broader, approaching a in *father*. But is it politic to establish a distinction which is perfectly useless, which the multitude does not countenance, and which is too slight to be generally noticed when made? An Alphabet made for the people of all nations must be simple and short; and its distinctions broad enough to be obvious to the dullest intellects. Nice discriminations and shades of difference would be not only entirely unnecessary and out of place, but would be great impediments to the introduction and use of the alphabet. And if words should be made to depend for their meanings on such discriminations, the mischief would be immensely increased.

45. The foregoing observations will also apply to my seventh sound. *Awning*, *naught* and *caught* are long; *on*, *not* and *cot* are short. Some persons may give the long vowels a deeper intonation, but the difference they would make is entirely too slight to found a distinction on, as to the sound alone. If you pronounce *naught* short enough it will be not.

46. I believe the eighth sound is short in all cases where it is not followed by *r*, and in some cases where it is, as in the word *hurry*. In *fervid*, *burn*, and such words it seems to be long, and is generally considered so; but a question may be raised whether the *u* in these cases is not really short, and its apparent length due to dwelling on the liquid *r*; or rather on the impure vowel sound between the pure *ú* and *r*. (See impures Nos. 57, &c.)

47. The ninth sound is most evidently short as well as long, even in monosyllables, though not marked so in the dictionaries. Every good speaker in this country makes a manifest difference between *hole* and *whole*, *known* and *none*, *quote* and *coat*; while he equally avoids the Yankeeism of saying *hull* for *whole*, or *stun* for *stone*. This short *o* in *whole* and *stone* is what Mr. Ellis would call a stopt *o*; but he does not acknowledge it in English: he acknowledges the brief *o*.

48. I am aware that in my last number, as well as in the fifth and seventh, I have brought together two vowels which are made to differ frequently in sound as well as in length. The sound we often hear given to *full*, if prolonged, does not become *fool*, but is more open. The difference is so small, however, that if we shorten the latter sound it seems to coalesce with the former. The sound we often hear spoken in *wood*, *hoop*, &c., is identical with the longer one in *fool*, &c. So that the distinction in these two classes of words should be attributed to difference of length and not of sound.

All the above vowels are here considered as being strictly simple, that is, as having no variation of sound during their utterance. Some speakers do make a slight diphthongal or cadential ending to a few of the long vowels. Of these I shall speak in another place.

49. This scheme, then, presents ten pure and simple vowels, each clearly distinguishable from the others, while yet they are so close together that a sound cannot be interposed between any two adjoining ones without confusion. I would make these vowels the standard not only for our language, but for others. And where a shade's difference is to be noted between one of our vowels and a foreign one, let it be done by some nob, or variation of the figure. Foreign impure vowels will come under a different category.

NASALITY.

50. If, during the utterance of a vowel, a part of the sound from the larynx is sent through the nostrils, that part is called a *nasal* sound, in contradistinction to that from the mouth, which is called *oral*. Both sounds taken together are called *orinasal*, and have been frequently, though improperly, called *nasal*. The two sounds are readily distinguished by the ear. The nasal sound proper is variable by intonation, but not by vocality. A sub-nasalism, or sound in the nasal cavities can also be produced when the nostrils are closed. All the oral sounds, pure, impure, and diphthongal, and the sounding consonants, may be combined with nasality. In fact there is usually a slight vibration of sound in the nasal cavities in pronouncing our common vowels, and the sounding (tonic) consonants, as we can discover by holding the nose, and thereby interrupting the sound and producing a nasal twang.

51. We want no new letters to represent *nasal vowels* as they are called; but either some simple badge attached to the vowel letters, or a simple and uniform modification of their forms, to indicate that nasal sound is to be superadded. Although the nasal mark belongs to the letter itself, and should be considered a part of it, yet as it would be expensive and inconvenient to have another set of types for such vowels, I have adopted the plan of representing them by a square dot, or short upright mark on a separate type to be placed to the right of, and in juxtaposition to the letter, and at the same height, thus 7'.

52. I know of no language, but the French, which uses this kind of vowels. They have four, as heard in their words *fin*, *chant*, *brun* and *bon*. And as these four are all the nasal vowel letters now needed, they may be accommodated with separate type having the nasal marks in the vacant places, thus, 5' 7' 9' 2'.

53. I have seen some blundering descriptions of these French nasalized vowels, even to confounding them with the nasal consonants. There is no difficulty, as I believe, in making them plain to the comprehension of those who have never heard them. The letters m, n, and ng, are p, t, and k, with nasal sound added. This sound commences with the consonant and ends with it. It belongs to the consonant alone. But the French nasal vowel

sound belongs to the vowel alone. It begins and ends with it, and there is no consonant after it. Take our word fan; it has three elements, f, a, n. The last one, however, might be called a double element, as it is t with nasal sound added. But the a is precisely the same in fan as in fat. It is not nasal in either. Now, if you pronounce the first two elements, f, a, with a full, strong voice, at the same time letting a part of the a sound pass through your nose, you pronounce the French word *fin*; and that is all there is of it.

DEEPENED SOUNDS.

54. While the particular configuration of the organs by which any vowel, (e for example,) is formed, remains the same, or nearly so, the posterior cavity of the mouth may be deepened, and the palate drawn further back. These changes will have the effect of deepening the sound without changing its main characteristics; and while the tone or key note remains the same. That a deepened sound is not a depression of tone is made evident from this, that singers often deepen their sounds as above indicated, while they must of course accord in tone with those singing with them. Vowels are often deepened in speaking, and no attention paid to the difference. Many teamsters tell their horses to steady or stop, simply by a heavy, prolonged, deepened sound.

55. The French sound in *je me*, which by some is supposed to be the same as u in *tub*, is, or was originally, I have no doubt, the deepened sound of e in *met*. The same sound is frequently given to our the when spoken rapidly. The sound in *les mes j'avais*, etc., I believe to be the deepened sound of *ā*, but it is difficult to distinguish it from the sound of e in *met* lengthened.

56. The barytone or deepened sound is denoted in a way similar to the nasal, with this difference, that the stroke, instead of being upright, is to incline in the direction \. Thus the sound in *je* would be *je*. This barytone mark may be on a separate type; or if the two French sounds *je* and *je* are all that are to be shown as deepened, let this showing be done by putting the marks on the same type in the vacant places, thus *je*, *je*.

IMPURE VOWELS.

57. Under the head of impure vowels, I include all such as have their sounds modified by the near approach of the organs to the configuration of one of the sounding consonants, namely, w, v, dh, z, y, zh, r, l.

58. It is evident, not only that such sounds can be made, but that we are constantly, though unconsciously, giving them utterance while speaking; for the transition of the configuration of the organs for one letter to the configuration for another, can not be instantaneous, consequently, as there is a continuous issue of voice during the change, there must, of course, be a continuous change of sound; or, in other words, there must be a continuous series of sounds, ranging from one fixed configuration to the other, each sound indefinitely short, and varying in an indefinitely small degree from the next. Wherefore, if in passing from a vowel to a consonant, or vice versa, we arrest the change about half way, and continue the sound, we shall find it neither a proper vowel or consonant.

59. We want no character to denote the mere passing from one letter to another. It is only when a go-between sound is dwelt upon that we need one. And then the form of the character should partake of, or combine the forms of, the letters it is between.

60. There are three impures which extensive use has rendered important. These are the only ones I shall make characters for. The first is the sound commonly given to *er* at the end of English words. This is an impure between u in up and r. Premising that my letter for r will be *ʀ*, the combined letter formed according to the above suggestions, will be *ʁ*.

61. The French u, as in *vû*, is an impure between *ē* and w. The Germans have the same sound in *über*, and the same shortened in *hütte*. Any one who has not heard the sound can pronounce it by fixing his lips as if to whistle, and then trying to sound *ē*. Premising that w will be shaped thus *ʋ*, the form of this letter will be *ʋ̄*. As frequently spoken, this sound would be better represented by *ʋ̄̇*, that is, i as in pin, and w.

62. The other impure is the French eu as in *feu*. This sound is *ɛ̄*, or the deepened e in met modified by w; but the lips are

not brought so closely together as in speaking *û*. The figure for this sound is *ŷ*.

VARIATIONS OF SOUND.—DIPHTHONGS.

63. In the ordinary concurrence of two sounds in a word, as in *create*, *going*, *react*, each is sounded at full length, and there is no stop or drawing off of the voice at the end of the first, until the organs are put in position for the second; but the voice continues throughout the transition. The same, too, in the transition from a vowel to a consonant, and from a consonant to a vowel. These transitions, however, are made so rapidly that the vocal sounds uttered during them, are not appreciated. Thus, in the word *going* we appear to hear only the sounds *o* and *i*, and nothing between them. But it is evident there is a *curved sound*, as it were, or an indefinite number of indefinitely short sounds made between them. (See No. 58.) In all these cases, the two vowels thus associated are considered as perfectly distinct, and are to be described (written) simply by their two vowel letters. I shall call them adjoining vowels, to distinguish them from what I shall now describe as diphthongs.

64. A diphthong proper differs from adjoining vowels in this, that instead of the two simple beginning and ending sounds being the only ones heard, they are shortened up so as scarcely to be heard at all, while the intervening ones, (the curved sound,) form the prominent feature of the combination. The reader will see that a diphthong is not a blending of two sounds into one uniform sound, as two colors may be so mixed as to become one, for this can not be done; but it is the passing from one sound to another.

65. An obvious mode of expressing any diphthong whatever, is to write it by its continents, the outside letters, with some uniform sign attached to them, or change in them, to show that they are not simple vowels, but slides. I adopt the plan of showing a letter to be a slide by separating it by a cut in two places, taking care not to mutilate it so but that the figure can be readily recognized. Examples will be seen in what follows. By this simple contrivance all diphthongs, and triphthongs too, by using three letters, may be described.

66. The theoretical number of possible diphthongs is equal to the

number of permutations of two letters each, which can be made with the simple vowel letters. A very few out of this great number, however, can ever be of any practical service. The others can not be distinguished to the ear from short adjoining vowels.

67. There are, in English, four generally acknowledged diphthongs. These are *i*, *oi*, *ū*, and *ou*.

I is spoken variously with the continents $\backslash \uparrow$, $\uparrow \uparrow$, and $\backslash \uparrow$. It appears to me that $\uparrow \uparrow$ are the usual ones; but the first is difficult to determine, because the slide commences with the inception of the sound, and goes rapidly to $\uparrow$, where there is a momentary stop. As Mr. Ellis, and others, take $\backslash$ for the first continent, I shall adopt their view. The proper expression of the diphthong, then, according to the foregoing plan of notation, is $\backslash \uparrow$, that is, the first continent divided, the other not.

68. The German *ei*, is the same as the above. Their *ai* has for its continents $\uparrow \uparrow$, and yet it is quite a different sound, for the reason that they dwell on the first, and not on the last continent. The Greek alpha iota and the Latin *æ* (*ae*.) are probably like it. The German *eu* sounds something like our *i*, but the mouth is less open. Its first continent is $\backslash$ or $\uparrow$, its last the French *ū*.

69. Our *oi*, (in *toil*, *boy*.) is very like a double vowel. The continents are $\uparrow \uparrow$, and like the German *ai*, the first one is dwelt on before sliding toward the last. Its proper expression is $\uparrow \uparrow$.

70. The continents of *ū* (as in *new*.) are $\uparrow \downarrow$, the last one slightly dwelt on. Its proper expression then is $\uparrow \downarrow$. When *u* is sounded as in *use*, (*yuse*.) there is, of course, a *y* before it.

71. The proper continents of our diphthong *ou* are either $\backslash \downarrow$ or $\uparrow \downarrow$. In some parts of New England the sound is flattened into $\uparrow \downarrow$. The last continent is a little dwelt on, and sometimes the first. The best expression, I suppose, is $\backslash \downarrow$.

72. These four, (*i*, *oi*, *u* and *ou*.) I propose to furnish with single characters.

The horizontal and curved parts of the vowel marks being the most essential in designating their sounds, we will call their characteristics. By combining the characteristics for the continents of *i*, and retaining the upright part common to both, we have the form $\uparrow$. And this would be the proper single character for *i*, but for the consideration that the characteristic for the first continent

comes at the bottom and at the right hand of the figure, and hence appears to be the last end of it; and in writing it would be the last part written, instead of the first. To obviate this defect I place the first characteristic at the top, and then comes the following figure 7, which I adopt for the sound of i.

73. The characteristics for the continents of oi, and the vowel post common to both, when combined, form 7, which is adopted for that sound.

74. The characteristics and post for the continents of ū combined make 7, which is adopted.

75. The combination of the characteristics for ou produce 7. By writing the first letter in full and adding the upward turn for the last, we have the figure 7. Either would answer; but as these figures are not so compact, I prefer to adopt for the first continent of the diphthong, the broader sound 7. As the slide should start with the sound, the difference is hardly perceptible. This gives the diphthong the figure 7.

76. As an easy way of expressing two of the values of our u, I have put two compound vowels in my full alphabet. The first is the diphthong u preceded by y, as in *use*, *unit*; and the same when unaccented, as in *unite*, *gradual*. The figure for this is the oo to which the horizontal portion of a y is prefixed, thus 7. The other letter is the short ū preceded by y, as in *fortune*. The figure for this is 7.

77. Diphthongs are usually spoken in the same time as long vowels. They are somewhat shortened up when unaccented, as will be noticed in speaking the words *dire*, *direct*, *dure*, *duress*. Like simple vowels, they can be shown to be short by narrowing the letters.

78. Mr. Pitman, in his recent publications, discards all double letters.* He even writes the foregoing diphthongs by two letters each. We cannot ask an Englishman to come here to learn how to pronounce his own language, but we can say the separate sounds in *en*, *in*, put together in Mr. Pitman's *mein* make some-

* Since this was prepared for the press I have seen a November number of the *Phonographic Review*. On the inside of the cover is the Alphabet, in which i, oi and ou have single characters; the u is made by two. This is probably the latest English arrangement.

thing widely different from our *māne*: so does his two sounds of *o u* make something different from our *ou*. I think Mr. Pitman has not sufficiently studied the distinction which should be made between adjoining vowels and a diphthong, (See Nos. 63 and 64.) Adjoining vowels always make two syllables; a diphthong is never cut into two. This consideration alone shows that two vowel letters not marked as slides, cannot properly represent a diphthong. A diphthong is not two sounds, but *one* compound sound; and therefore there seems to be a propriety in representing it by one letter compounded of the letters for the principal sounds heard in it.

79. I leave the fixing foreign diphthongs to others better acquainted with them. There can be no necessity for augmenting characters for such; for all diphthongs whatever can be correctly and exactly expressed by the modes I have described. What I have attempted, (and what I think I have succeeded in,) is to furnish such principles and directions, that any person, who is acquainted with the sounds of a language, can write them with accuracy; and any person who has never heard them can read them thus written, and speak them aright.

CADENCE, AND DIPHTHONGALISM OF LONG VOWELS.

80. We frequently hear a kind of secondary effort in pronouncing long vowels, and sometimes, too, in pronouncing short ones at the end of a sentence. With some speakers it is a cadence, or tapering off, produced simply by a depression of tone. With others it is a change of sound, a sliding of voice, forming a kind of diphthongal ending to the main sound. This is practiced more in England than in America. Here, I believe, it is regarded as a patois. This way of speaking changes *ē* into *ēi*, *ā* into *āi*, or *ēi*, *ō* into *ō-oo*. In the original Saxon, (once written more Phonetically than at present,) it is probable that such words as *may*, (like *joy*,) had a diphthongal ending, which was expressed by the letter *y*. More rarely we hear a softener at the beginning of a vowel. Thus *garden* is changed into *gyarden*.

81. It is not my business to approve or disapprove of these slides; but to show how they may be expressed. The directions for diphthongs, No. 65, will cover all these cases. For example, if I wish to show a diphthongal ending to the word *may*, I add the slide for *i* to the long *a*, (thus *āi*.) If I wish to show my pronunciation of *guard* to be *gyard*, I put in the sliding *i* before the *a*;

or if I wish to show it still stronger than that will make it, I put in the letter for y.

Diphthongalism among nasals, and deepened and impure vowels, and changes from either to pure, or the contrary, may generally be managed according to the foregoing directions.

OBSCURE VOWELS.

82. The momentary, dull or subtonic sounds frequently heard in short unaccented syllables, where the speaker passes rapidly from consonant to consonant, paying no attention to the sounds he utters between them, have been termed *obscure*, (because no clear sound is heard,) and have been a perplexity to orthoepists and phonographers, on account of their indefiniteness. A proper case of this kind is where there is a sound uttered which is not due to the consonants themselves, and yet no clear vowel is uttered. The reader, by noticing what is said in No. 58, will be able to understand how it is, that a change of configuration from one letter to another, with a constant emission of sound between them, can take place, and yet no clear, definite vowel sound be uttered. For in no part of the change is there a configuration of the organs free from approximation to a consonant, and therefore the sound, or any portion of it, is impure, and bears more the character of a subtonic than a tonic.

83. Extreme precision in representing these sounds would require characters for them, composed of their containing consonants, (continents,) somewhat after the manner described for diphthongs, (No. 65.) But such niceties are inadmissible in a practical alphabet.

84. It should be borne in mind that the written form of a word should present the clear, full, deliberate utterance of it. In most instances of these obscure sounds, therefore, the proper short vowel representing the short sound of the Roman letter by which the sound is now written, should be used. Such, if there should be any, which cannot be written with proper vowels, might be practically represented by an *obscure vowel mark*, thus shaped $\exists$. This sign would not represent a definite sound, but represent that the sound to come in at that place is short, unaccented and indefinite.

85. There are other cases where the sounds are entirely, or almost entirely, suppressed; as between pn in open, sn in chosen, pl in apple, vr in over. Such cases Mr. Ellis writes with an apostrophe, thus, op'n, cat'l. In these cases, that is, where there is an entire suppression of all intervening sound, except the sub-tones properly belonging to the consonants, I would prefer to write neither vowel mark nor apostrophe; for if we obey strictly the phonetic principle, we must make no mark for a sound where there is none. I do not condemn the apostrophe, if by it is signified that there has been, or should be, a sound there, which is not now uttered; though it can hardly be necessary to give the reader such information every time the word is written.

I would use the apostrophe only to signify the possessive case, and the contraction of a word; thus I would write M'r instead of Mr. for Mister.

CONSONANTS.

A TABLE of the Simple Consonants Systematically Arranged; with Analogical Forms.

No. 86.		Labial.	Gingival, or Linguigin- gival.	Palatal, or Linguipal atal	Guttural.
		Power of Analogical Characters.	Power of Analogical Characters.	Power of Analogical Characters.	Power of Analogical Characters.
Close. Rough. Soft.	{ Atonic,	(p	t	(k	< hc
	{ Tonic,	) b	d	) g	
	{ Nasitonic,	) m	n	) ng	
	{ Atonic,	< ph	< th	< ch	< h
	{ Tonic,	< vh	< dh	< gh	
	{ Tonic,	< w		< y	< r
	{ Atonic,	< f	< s	< sh	< hl
	{ Tonic,	< v	< z	< zh	< l

THE CONSONANTS ARRANGED IN TABULAR FORM.

87. This table, (No. 86,) I believe comprises all the proper consonants that can be uttered. Some of them will run into each other, and of course many variations can be made; but I think these are all that should legitimately be called simple consonants. As with the vowels, so also with these, Mr. Ellis makes out a far greater number than I do. This is owing to his making distinctions where there are but small differences. Thus, beside the soft breathing, which is not heard as breathing at all, otherwise than as sound, he has five others, (p. 39 and 40,) differing principally in the force of their enunciation, all of which are symbolized by the letter h. The hamza, (to be explained No. 100,) he divides into the break, and hiatus, which is an "exaggerated break."

88. The letters of the table taken vertically, are divided into four classes, each column being a class. The letters of the first, (the Labial class,) are made by the lips, or lips and upper teeth. Those of the second class, (Gingival,) are formed by the tongue and gums back of the upper teeth. Those of the third, (the Palatal,) are formed further back in the mouth, by the tongue and palate, or roof of the mouth. And the fourth class, (Guttural,) farthest back of all.

89. Considered horizontally, the letters are grouped under the names of close, rough and soft. The close letters have been called explodents; the others whispered and spoken, consonants, liquids, etc.

90. All the consonants are either atonic or tonic. The tonics are all oritonic, except the three nasitonics. By atonic letters I mean such as are whispered. They are without sound or tone in themselves; and by tonic letters I mean such as are accompanied by a sound or subsond. It is well known that most of our consonants are divisible into pairs of letters, or couples, having the same articulation, and differing from each other only in the above respect.

91. There can be no resemblance between a spoken letter and its representative on paper. The two are essentially and totally different. We can not paint a sound. The letters that we use, as to their shapes, are taken arbitrarily to represent the spoken

elements. The most direct way of representing a spoken letter, is to make a pictorial sketch of the situation of the organs in uttering it. This can only be done with respect to the consonants, or some of them. The vowel sounds must still have arbitrary representatives. The sketching would be done thus: a sectional view of the lips closed would denote p. If sound was represented by an arrow-head, the closed lips and the arrow-head inside of them pointing toward the closure, would stand for b, (i. e. p plus sound.) The arrow-head pointing upward toward the nostrils, with the lips closed, would signify m. The lips slightly parted would indicate ph, (not f.) The arrow-head added, pointing to the opening, would show vh. The lips protruding, open, and the arrow-head would show w. A section of the upper teeth and gum, with the tip of the tongue against the gum, would be t, etc. Such drawings can never become practical letters without simplifying them so much as to destroy the resemblance between the picture and the letter.

92. But there is another basis for constructing letters, which I should wish to have carried out, did not other considerations imperiously forbid it; and that is to assume some simple geometric forms for simple principles, and always use them for such. On this basis I have formed the characters in the foregoing table, No. 86, so as to make them analogical representatives of the consonants, to show the relationship existing between them. They are not to be the common printing letters, which must be more simple, better looking, and more in harmony with the writing letters. These will be shown in the table No. 104.

93. To form the Table No. 86, I assume the figures), |, (, and <, for characteristics of the four classes, (No. 88,) and assume a short, horizontal mark for tonicity; at the bottom of the characteristic for oral, at the middle for nasal; and assume an oblique mark for breath. With these the whole table is made, as will be seen by the following description.

94. The first class has the mark) for its characteristic. The atonic p, the simplest letter of all, is this mark alone. The addition of the oritonic mark to this letter, thus, $\underset{\sim}{\text{p}}$, makes b, (i. e. p plus sound.) The addition of the nasitonic mark, thus, $\underset{\sim}{\text{p}}^{\sim}$, makes m, (i. e. p plus nasal sound.) The audible passage of air

through the lips makes the letter ph, unknown in our language. We have, it is true, the digraph ph, (as in the word digraph,) but we pronounce it the same as f. The letter ph is supposed to be the Greek ϕ phi. It can scarcely be distinguished by the ear from our f, which is produced by passing air between the under lip and upper teeth. As the ph is p plus passing breath, it was originally denoted by adding h, the rough aspirate to p. It is symbolized in the table by an oblique stroke started from near the top of the characteristic, and drawn in a downward direction.

95. The ph has two tonics. The proper one, vh, is also unknown in our language. It is used in Germany, and by some Germans for our w. This letter (=ph + tone,) is, of course, formed from ph by adding the tone mark. The other tonic for ph, which may be called its casual tonic, is our w, and is a variation of the vh. In speaking the w there is a slight protrusion of the lips, and an effort toward making the opening between them circular. The whiz of the vh is scarcely heard in the w, while the tone is a deeper murmur resembling the sound oo, closer, of course, than the pure vowel, but so plain as to make it the main feature of the letter. It is, as it were, a concrete oo.

96. The attempt to pronounce $\bar{e}$ with the lips fixed for w produces the impure French $\hat{u}$, the concrete of which is vh. This concrete may vary in a slight degree from the ordinary vh, (which has the edges of the lips close to the teeth,) but not more than many other letters are capable of varying without changing their names.

97. A change in the manner of passing breath through the lips, making f, is indicated by a change in the direction of the oblique mark, thus γ . Its tonic v is $\underline{\gamma}$.

98. This explanation of the formation of the first class will do for the whole, for in a similar manner are the letters of the other classes formed from their characteristics.

99. I have sufficiently explained the letters of the first column while speaking of their relationships; some of the others will need a few words. The letter marked th is heard in *thin*: its tonic, dh, is heard in *this*. The nasitonic of k, ng, is heard in *sing*. The letter indicated by ch is not in our language, but common in the German and some others. The English scholar may

know it by its being the asperate of *k*, (= *k* + breath.) Like *ph*, it has two tonics. The proper one, *gh*, is heard in the German *selig*, *könig*. The casual one is our *y*. The *ch*, like some other letters, is capable of considerable variation. When preceded by a low vowel, as in the German *buch*, it is more guttural than when preceded by a higher one, as *Ich*. The tonic of the most guttural one is always *gh*. The tonic of the high one is *y*, (as in *yet*), and this is the concrete *ē*. The soft atonic of *k* is heard in *shall*; the soft tonic in *azure*, *vision*.

100. The mute guttural marked *hc*, is produced by closing down the epiglottis, or top of the windpipe. It is uttered in coughing, in groaning, and very forcibly when the breath, having been pent up during exertion, is suddenly and audibly let loose. A cough is a spasmodic effort of this kind. Mr. Ellis says this is the Arabic *hamza*. His own name is "the break," and when strongly expressed, "the hiatus." He gives an example of its use by a London Cockney, as follows, the colon standing for the hamza or hiatus: "On :iz hone: ee neve: saw e :ous like this ere :ous, neve:," [On his honor he never saw a house like this here house, never.] The hamza can be spoken about as easily and as distinctly as the other mutes, and hence it is a good letter. I have heard several persons use it occasionally in place of *t* or *c*, apparently because they were too lazy to pronounce the proper letter. As the closure of this letter is formed just over the larynx, and below the openings into the nostrils, it has no corresponding tonic and nasitonic letters.

101. *H* is the true asperate of the above letter *hc*, and hence it is a proper letter, (which some have doubted.) It is the audible passing of breath through the epiglottis, and along the upper passages, and mouth, unobstructed by other letters. It can be uttered at the beginning and end of vowels, and before and after consonants. It is often necessary to the full pronunciation of a mute or close letter; as in the word *oft*, pronounced *oft-h*; and in such cases it has been called a post whisper. The letter *h*, (explosive breath,) has to follow the mute, to indicate to the ear of the hearer the kind of mute used. Breath only is frequently used in place of a short and obscure vowel. Thus the word often is fre-

quently pronounced oft-hn; sometimes it is shortened into of'n. The Irish put the h into a multitude of words.

102. The letter r is placed in the table as being the tonic of h. It does not seem to be very properly so, tho' it is the only tonic the h has. The atonic of the common r seems to be a guttural somewhat between h and ch, a very rough breathing. The trilled or asperated r is not properly a simple consonant. Its asperation can be shown by putting an h before it, or by a double letter shaped thus, *rr*.

103. To pronounce l the tongue must be in contact with the roof of the mouth, while sound passes by the sides of it. It is the purest specimen we can get of laryngal sound unmodified by reverberation in the mouth. The letter I have marked hl in the table, that is, the proper atonic of l, is, of course, a passing of breath instead of sound, while the organs remain the same as for l. It is difficult to pronounce this hl in connexion with a vowel without sounding l between them. The Welsh ll is not this atonic l, as it is said to be. I have had several Welshmen pronounce their ll for me, and they made it the same as ch, (which they also have,) except that it is still more guttural. The table begins with p, the most external and close atonic, and ends with l, the most internal, open, and soft tonic.

104. The table which follows has the letters in their proper shapes in place of their analogical characters in Table No. 86. In this table every letter stands in its proper place, classified by the heading at the top, and described by the words at the left hand side.

A TABLE of the Simple Consonants Systematically Arranged.

No. 104.		Labial.	Gingival, or Linguigin- gival.	Palatal, or Linguipal- atal.	Guttural.
		Power of Anal- ogical Characters.	Power of Anal- ogical Characters.	Power of Anal- ogical Characters.	Power of Anal- ogical Characters.
Close.	Atonic,	ᵀ p	ᵀ t	ᶜ c	ᶜ hc
	Tonic,	ᵇ b	ᵀ d	ᵍ g	
	Nasitonic,	ᵐ m	ᵀ n	ᵏ ng	
Rough.	Atonic,	ᵀ ph	ᵀ th	ᶜ ch	ᶜ h
	Tonic,	ᵇ vh	ᵀ dh	ᵍ gh	
	Tonic,	ᵇ w		ᵍ y	ᶜ r
Soft.	Atonic,	ᶜ f	ᶜ s	ᶜ sh	ᶜ hl
	Tonic,	ᵇ v	ᶜ z	ᶜ zh	ᶜ l

ANOMALIES.

105. I have already said that several of the consonants will run together, and that anomalous sounds can be pronounced between two proper letters. It would seem to be not only unnecessary, but in bad taste, for a language to make use of such sounds when we have such an abundance of proper letters already furnished; for if a language were to be made comprising a thousand times the number of words in any present one, the present list of simple vowels and consonants would be amply sufficient for it. But as my system may appear defective, unless it can write all the sounds of the principal European tongues, I must notice such as I know to be in use.

106. *The French gn Liquid.* Perhaps the nearest we can come to *agneau* with the English power of our letters, is ang-n^o; but this is not precisely the thing. From the specimens I have heard of this liquid, gn, I believe the following to be a true analysis of it. If the reader will pronounce n, (en,) in the usual way, putting the fore part of the tongue to the upper gums, and afterwards pronounce it with the tip of the tongue on the lower gums, while the middle portion of it only is in contact with the upper gums, or roof of the mouth, he will perceive a manifest difference of sound, though the last is evidently n. If, keeping the fore part of the tongue down, he makes the contact between the tongue and roof further, and then still further back, he will come to a point where the sound appears no longer as n, but as ng. Now this gn I believe to be a mongrel engendered between the letters ng and n. Most of those I have had to pronounce it for me, have worked it as though they had a thick tongue, making a continuous contact with the roof of the mouth from ng to n. Sometimes I would hear a slight g before the nasal. The break of the contact, supposing a vowel to follow, would commence on the ng side, making the sound slide slightly toward n; but finishing the break in such a *betweenity* that a slight y must necessarily follow before the succeeding vowel could be pronounced.

The figure of this half-way letter, then, should be something between the form of ng and n, as this, .

107. *The French ll Liquid, or -ille.* Possibly the reader has listened for half an hour to a French master showing him that sometimes these letters are pronounced so —, and so —, (giving examples in French words,) and sometimes they are not pronounced at all, so —. And in following his guide in the latter case he may have been puzzled to make out he had such a pudding in his mouth, that, with his best efforts toward the utterance of an l, he could not accomplish it. Nor could he see clearly into the reason given, why he should try to pronounce a letter as it were, and yet omit to pronounce it at the same time. In the former case he may have astonished his teacher at the close of the lecture, by what, to him, seemed a plain question, enunciated in something like this form: "If you make an l out of an l at all, why don't you let it stay an l?"

This peculiar l seems to have originated like gn, from a thick tongue, or from great carelessness in speaking. In pronouncing it the tongue is flattened out more than for l; the root of the tongue is brought closer to the roof of the mouth, while the tip is retracted. The "liquid" is preceded by i, (= ē in English,) which is compressed into a y, and is forced along a straightened passage where several gutturals seem to be struggling for birth. Among them, sometimes, something like an l actually escapes,

and sometimes it almost does it. In ordinary talk there is no *l* spoken. The *e* slides into its concrete, *y*, and the syllable ends there. The next syllable begins with *y*; the two *y*'s being equal in length to a long vowel.

Form. The form of the unpronounced *l* I must leave to be fixed by the man that painted the angel out of sight. The liquid *l* being something between *y* and *l*, or a passing from *y* to *l* may be shaped thus, **U**.

108. *Lisping*, (*lithping*), is the production of a mongrel between the clear sibilant *s* and the rough *th*. It is used for *s* by those who can not speak the letter plainly; and as it is considered a defect, it needs no letter.

DOUBLE LETTERS.

109. By a double letter, I mean a single type or figure which represents two letters, as the Roman letter *j*, as pronounced by us includes the letters *d* and *zh*. It is quite convenient, and almost necessary for us to have letters for the four diphthongal vowels; but besides them, we can do without any such combinations in printing and round hand writing; in which I think it best not to use them at present. I do not, however, seek to influence the question whether they shall ultimately be employed. A few will be necessary in brief writing.

110. Some phoneticians insert *tsh* and *dzh*, (*j*), in their alphabets. If put in mine, their genesis will be as follows. The *tsh* is *sh*, (**♂**), with the stem turned down horizontally, and a portion of the circular part made straight and upright to represent *t*, thus, **♂**. The round writing letter is **♂**, and the short letter, **♂**.

The printing letters *d* and *zh* joined together and slightly changed make **π**; this is the printing *j*. The round writing letter is **℥**, the *d* part being commenced from the bottom. But to join easily to a preceding letter, the lower part of this *d* must be left off; and to maintain a proper discrimination between the remaining portion of the letter and *y*, (**℥**), the loop or small circle must not be omitted. This loop and the circular portion immediately joining it, form the short hand letter **℥**.

CAPITALS, ITALICS, VARIETIES AND STYLES OF LETTERS.

111. Capital letters, as they are called, or letters larger and having different shapes from those in the body of the writing and printing, have been used since very early times in the history of writing, for headings of discourses, for the first word or first letter of a sentence, and first letter in many other words. It is not much over a century since English printers commenced every substantive word with a capital; and our grammars now contain definite rules for their use. These letters add to the variety, and probably, somewhat to the beauty of a writing, but beyond this there is but little utility in them. They are seldom or never used to change or settle the meaning of a word. Proper pointing will always show where a sentence ends: a capital will show where one begins. But is such showing necessary? The first word of a discourse or chapter is frequently put in capitals, and the first letter of that word in a large capital, as much as to say, Here the chapter commences. The fancy is still kept up in some publications of making this big letter ornamental, and sometimes of enclosing it in a cartoon or case, entirely separated from the other parts of the word.

112. The universal use of capitals in connection with lower case letters, causes them to be regarded as essentials, rather than embellishments; and a scheme of writing which would dispense with them would be greatly prejudiced thereby.

113. Many styles of letters, varying from each other in their thickness, in the projections from their corners, in their ornaments, etc., will be in use: and it will do no harm to call one of these styles capital, and another lower case letters. And both of these styles may be made leaning, and then they may be called or answer for Italic capital and lower case letters.

114. In conformity with this usage of two sorts of letters in a writing, and in order that it can be carried out in my scheme, I put two sorts or styles in my alphabet; the first to be called *capital* or *head letters*, because they are put at the heads of discourses, sentences and words; and the other, *body letters*, because they constitute the body of the writing. Leaning letters and ornamental styles will also be made, together with round writing or script type, and short writing type. So we can have plenty of variety.

115. The capital printing letters are all of the same height. The body printing vowels are the same height as the capitals, but the body consonants are only two-thirds of that height. The writing capitals and body vowels are the same height, and double that of the body consonants. Writing capitals are essentially the same as the writing body letters, but made larger, heavier, and with flourishes. Short vowels are double the height of short consonants. For the mode of expressing capitals and italics in short writing, see No. 136.

116. The following proportions of parts may serve for common printing letters.

Capital Vowels and Consonants and Body Vowels to be six parts high.

The height of Body Consonants to be four parts ;

The width of Long Vowels to be three parts ;

do. of Short do. to be two do.

do. of Capital Consonants to be four parts ;

do. of Body do. to be three do.

The swelled parts of Capitals to be one part thick ;

do. of Body Letters to be two-thirds that of Capitals ;

The thin portions of Letters to be half, (or one-third,) the thickness of the swelled portions.

The horizontal projection on the ends of the letters to be the same thickness as the thin parts of the letters, and to project equal to, (or once and a half,) the thickness.

THE FULL ALPHABET.

117. The letters we have heretofore described being collected in consecutive order, present ten long and ten short simple vowels, four English diphthongs, two compound diphthongs, yū and yŭ, (and as many more diphthongs and compounds as you please,) four French nasal vowels, (and all the other vowels nasalized, if need be,) two, (or more,) deepened vowels, three, (or more,) impure vowels, two mongrels, twenty-eight simple consonants, and two, (or any other number of,) double consonants.

118. The lithographic plate headed "The Full Alphabet, Plate No. 1," has a vertical double line running to the bottom, dividing the plate into nearly equal parts. On the left hand side are the vowels ; on the right, the consonants. At the top of the first

column on the left, after the heading, the reader will see the number "1 l," meaning the 1st sound long, with the word "eel," having that sound in it. On the same line in the next column are the capital and body printing letters for that sound, in the third column the capital and body round writing letters, and in the fourth column the short writing letter. In the next line, immediately below "1 l," is "1 s," meaning 1st sound short, with a word having that sound in it, the letter indicating the sound being in *Italic*; and on the same line, in the proper columns, are the printing and round and short writing letters for that sound. In the third line, is "2 l," that is, second sound long; but as we have no words with that sound long in it, the place for a word is vacant; the letters for that sound, however, follow on the same line. Then comes "2 s in," and on the same line the different letters for it. And so on through the ten long and ten short simple vowels. Then follow the six diphthongal vowels in the same manner; then the four French nasals, and two deepened sounds; which brings us to the bottom of the plate. The three impure vowels are put at the bottom on the right hand side.

Commencing at the top of the plate on the right hand side of the double ruled line, are the consonants, following the same arrangement as the vowels on the left.

THE PRACTICAL ALPHABET FOR ENGLISH.

119. In strictness, ten vowels and twenty-eight consonants comprise the list of simple elements. The principal accidents of vowels, are length, force and tone, (No. 23.) The last two are shown by concomitants, but the determination of length is so important that it must be shown by the letters themselves, and therefore a duplication of the simple vowels is necessary. The other vowels, though varying in length by accent, are not doubled. For English, the four diphthongs are necessary. The two compound ones *yū* and *yŭ*, and the double consonants, *j* and *ch*, may be convenient, but are not necessary.

120. All the letters we need then in English are eight long and ten short, simple vowels, four diphthongs, and twenty-two consonants, (= 44.) In No. 121, below, the capital and body letters for printing, answering to Roman, for these forty-four letters are

shown quite large, so as to exhibit the shapes and proportions of parts more accurately. Leaning letters, answering to Italics, will be the principal variations from these. It will be an easy matter to fix the shapes of them when they shall be needed. Other variations for ornamental purposes, etc., will also be made.

THE PRACTICAL PRINTING ALPHABET.

No. 121. *Vowels.*

Consonants.

S Z C U R Z z r u
 s z c u r z z r u
 v a v i j l p e
 v a v i j l p e
 t f t h b d b r g
 t f t h b d b r g
 T F H b r y G
 T F H b r y G
 T F H b r y G
 T F H b r y G

OF POINTS, FIGURES, AND OTHER CONCOMITANTS OF
THE ALPHABET.

122. Most of the points and other characters now in common use, will be needed. The following are adopted from those now universally in use, and therefore they need no explanation :

, ; : . ' " " ? ! * † ‡ § ¶ () [] + × ÷ = \$ £ 1 2 3 4 5 6 7 8 9 0

123. The common parenthesis, when used in short and brief writing, will be made much longer than the short letters for c and p.

The parenthesis ζ η is used by Mr. Ellis, and others, to include words printed in the common orthography, and will be useful for that purpose.

The hyphen in short and brief writing, must be a double mark, thus, =, and the dash, a single one twice the length of the short letter, —.

124. Instead of using the dagger and other figures for reference marks, I would use the star (*) alone for the first reference, and add to it the figures 2, 3, 4, &c., for succeeding references on the same page. In Bible references, or wherever they are numerous, the figures alone, or letters of the alphabet, will be used. All figures in mathematics, the sciences, etc., can be as well employed with my alphabet as with the Roman.

In addition to the foregoing points, etc., are the following concomitants of the alphabet hereinbefore explained, viz: ˆ high key, ˊ middle key, ˋ low key, ˆ rising inflection, ˋ falling inflection; see No. 19: ˆ half accent, ˆ full accent, ˆ accented word, ˆ emphatic word; see No. 31: also sliding vowels, see No. 65: obscure vowel mark, see No. 84: anomalies, see Nos. 106, 107.

SPELLING AND WRITING.

125. The one simple rule for spelling, to be followed without exception, is to speak or write down each letter as the sound it stands for occurs in pronouncing words. Thus the spelling of a word, (or the letters composing it,) will indicate the pronunciation; and the pronouncing a word will show its spelling. Considered in this light, the writing is called Phonography. Considered as a universal medium for writing different languages, it would be called Pasigraphy.

126. Phonography, compared with our present way of spelling, presents the following advantages: 1st. About two-thirds the number of types or letters are required in a composition, there being no redundants, and no contrivances to exhibit a single sound or articulation by two or more letters instead of one. 2d. The time of learning to read, the alphabet being committed, is reduced from years to minutes. 3d. It will establish a uniform pronunciation wherever the language is spoken. 4th. It will afford a ready means of showing the exact pronunciation of words in other languages, thereby rendering their acquisition much more easy.

127. The only difficulty in spelling aright is in determining what is the exact pronunciation. Tuesday cannot be written without deciding whether it is tewsdy or chewsdy, or tȳusdy. This is no part of my present business.

No consonant can be doubled in a word except it is a compound one, where a distinct effort is made on the second letter, as in mis-spent, innate, solely; t must be retained in words ending in -nts, -lts, and -fts. Thus *cents* will have the t in it, and *sense* will not, though they are apparently pronounced alike. So must p be retained in words ending in -mp where s is added.

128. The expense of procuring matrices for new type prevents me from displaying my Alphabet in print. Plate No. 2 contains paragraph No. 6 in round writing, and part of the same in short writing unabridged.

SHORT WRITING.

129. This writing retains the essential parts only of the letters. The simplest forms, or marks, that can be made on paper, are the point, (dot,) the straight line, and the circle and its parts. These are our elements for short and brief writing. The short letters, both consonants and vowels, are shown in plate No. 1, under the head of short letters. The brief consonants are nearly the same as the short; but in brief writing the vowels are designated by very short marks, half circles, hooks, large and small dots, &c.

130. The consonants are composed of straight marks, quarter circles, and small circles, (loops.) If a circle be divided by a horizontal and vertical diameter, the quarters will represent four short letters: and a horizontal and vertical radius two more, as in the margin. If the whole be turned round forty-five degrees, the position of six other letters will be shown: see margin. These twelve simple characters are applied to the twelve consonants most in use. The other letters are necessarily more complex.



131. We frequently see all distinction between the atonic and tonic letters, (No. 90,) confounded by foreigners, who are nevertheless perfectly well understood. Such characters have been allotted to most of these couples as are most likely to be mistaken for each other. By this arrangement, if a corresponding letter should be formed by a little carelessness in its position, or intentionally substituted (in brief writing,) on account of the lineality or beauty of the writing, the legibility is not affected.

132. The horizontal letters are written from left to right. The perpendicular and oblique ones are written downwards, except such as lean like /, which may be written either way. The loop

of a letter, except δ , is always the first part written, and the stem starts off tangentially to it. Sr is written $\swarrow$; ss is $\swarrow$, or $\nearrow$; pr is δ , or it may be written $\vee$, the last half of the p being left off; mpr should be δ , the better to distinguish it from mtr; dc is $\mathcal{L}$, or $\mathcal{A}$, the first part of the c being left off; dr is either $\int$ or $\mathcal{J}$. These three cases of pr, dr, and dc, are the only ones where one consonant is allowed to cross another.

133. The vowels are double the height of the other letters. Every part of a letter should be made plain and full, but not swelled. The exact position and shape of the letters must be maintained; the straight must be perfectly straight, the upright perfectly upright; there must be no general leaning of short and brief letters.

134. The paper to be written on should be ruled, or faint lined, as is commonly done, to keep the lines straight. The faint lines will constitute what is called the *bottom line of writing*, below which the writing should not pass. At the distance of from the eighth to the tenth of an inch above the faint line is an imaginary line called the *top line of the consonants*, which the upper ends of the perpendicular and oblique consonants are to touch; and at the same distance above this is another imaginary line, called the *top line of the vowels*, which the upper ends of the vowels are to touch.

135. The horizontal consonants may be placed on the upper or lower line of the consonants as will be most convenient in joining. The letters of a word must be placed close together; they need not join; but where it is more convenient to join them, do so. Oft times the pen must be lifted from the end of one letter to the commencement of the next. But this is not so great a disadvantage as it may at first appear; for a person can take his pen off from one point and put it down on another, in just about the same time that he can make a stroke between them; that is, he can write two disconnected lines, thus $| |$, as quickly as he can write them connectedly, thus, ∇ . It is better that no marks should be made in this writing but what are significative.

Vowels are generally written downwards, but it is sometimes easier to project one upwards from a preceding consonant.

136. A capital letter is denoted by a dot over the head of it, in a line with the direction of the letter. A small dot over the letter will signify a small capital, and a large dot a large capital, as $\nearrow s$, $\nearrow S$. A short stroke, light or heavy, in the place of the dot, will signify a small or large Italic capital, as $\nearrow s$, $\nearrow S$. Capital and italic words can be shown by underscoring, as is now done by writers for the press; viz, one line for *italics*, two lines for SMALL CAPITALS, and three lines for LARGE CAPITALS. Points, figures, marks, &c., as mentioned in No. 122, are to be used in short and brief writing, the same as in round hand, putting them at a little distance from the words. The comma is a simple cuspis, thus , , the semicolon a point and cuspis.

Common abbreviations and initials of names are expressed by writing a point at the foot of the letter in a direct line with it.

137. Numbers will commonly be expressed by words, or the Arabic numerals, (figures,) as they are at present. In tables, calculations, etc., where they are so situated that they cannot be mistaken for common letters, the following letters are used for the figures standing over them:

1	2	3	4	5	6	7	8	9	0
—	⌒		⌒	⋖	⌒	)	(	⌒	.

Those composing a number may be written separately, or joined in the usual way, or unusually, that is, the end of one joined to the next, not at its end, but somewhere along its length. An object in thus connecting them is to show them to be figures. In performing arithmetical operations they must be separate. As like straight letters coming together will not join without coinciding they must be written separately, as $\backslash\backslash$, (55.) Cyphers occurring together are expressed by so many dots in a horizontal row. The decimal point is indicated by a colon, as $\$ \text{,} \text{,} \text{,}$, (\$4.50.)

138. *Current Short Writing.* Although all contractions properly belong to the brief department, yet it may be convenient to abbreviate the short mode of expressing vowels,

1st. By using half-length vowels, when they will join to a succeeding consonant and make an angle with it. As such vowels will be distinguished from consonants only by their height in the writing, they must always come up to the upper vowel line.

2d. By writing *ing* at the end of words by simply turning o on the end of the preceding letter, as  bring.

3d. By omitting obscure vowels.

ADVICE FOR WRITING THE SHORT AND BRIEF HANDS.

139. Do not try to write before you have studied well the instructions. It is easier to take a little care, and start right, and go right from the first, than to cure an erroneous habit afterwards. In order to write well and write fast in time, write slow at first. Place your paper square before you, and as there is to be no sloping of letters, as in common writing, the face of the pen must be turned more to the right. Make every letter as near as possible to its exact shape and size, and in its proper position. A proper distance is to be observed between the words; also between the lines.

140. Be not discouraged at not being able to read your writing easily at first. You can neither read nor write rapidly until you are familiar with the letters and way of spelling. Practice will soon accomplish this familiarity. Let your writing, unless where you are sparing of room, be open and bold. Nothing is gained in time by making the letters diminutive; besides they are apt to be not so well formed.

BRIEF WRITING.

INTRODUCTORY.

141. Stenógraphy, Brachýgraphy, Short Hand, and Brief Writing, or Breviscription, all mean the same, namely: the art or process of writing by fewer and more simple characters than those in common use. The word now used to designate this writing is Phonógraphy, which, etymologically, means *the writing of sound*. In a strictly philosophical sense, sound can not be said to be written at all, unless its impact on the ear of the hearer can be called so; and this fades away during the very moment of its impression. But sounds are signified or represented on paper by letters, which, when collected into certain groups called words, represent words of speech. This representation of speech on paper is Phonógraphy in its broad sense; and hence our present abnormal mode of writing might be called by that name; for the seven letters in the word *thought*, when put together in that order, signify the spoken word, or the sound of that word, as fully as would be done by a proper system in which the word would be written with three letters. A proper system of representation requires a letter for every sound, and to have the letters follow each other on paper in the same consecutive order as the sounds follow each other in speaking. And to this corrected mode of representation many writers now restrict the meaning of the word Phonography. But thus restricted, the word makes no reference as to whether the letters are simple or complex, whether the writing is done easily and quickly, or the reverse. It contemplates, besides, the writing of all the sounds, so that, although *intndd* is sufficient to show the word *intended*, it would not be Phonography, or writing the sound of the word. Phonography, therefore, is not the proper name for Short Hand.

142. The principal object sought of Brief Writing, is the means of recording words with dispatch,—nearly or quite as fast as they are delivered by a speaker. A minor object is that the writing may occupy less space on paper. These ends are attainable to such an extent, as to constitute important advantages over common

writing; for the time spent in writing an article in short hand, as well as the space occupied by it when written, need not exceed one-fourth of what they would be in long hand; while the article can still be read with ease and certainty.

143. A good system must be,

Plain, so that the writing may be read without the least difficulty:

Short, that the writing may be easily and quickly done:

Simple, so as to be easily acquired and remembered.

These requisites have a mutual dependence; for if we strive to make our writing very plain, we lessen the speed with which we write; if we make it very short, we endanger its legibility; and if we make it very simple, or short to be learnt, we deprive ourselves of the ways of abbreviation, which are convenient to every one, and necessary to the reporter.

144. From these considerations arises another, which is, that the system should be capable of varying its ways of writing, so as to accommodate itself to the various uses and exigencies for which it is designed; that it should, in a plain, neat, and tolerably expeditious manner, express words with the utmost precision, and thus be a safe and reliable continent for important records; and that it should also furnish such modes of contraction that when haste requires, sentences can be written in the shortest possible manner.

145. Most of the characters now used in every system, or scheme, being the shortest and simplest of all possible marks, will always continue to be used in all ages and languages. The merit of each particular scheme will depend on the judicious application of them to the elementary sounds of the language.

146. In forming the alphabet I have been guided by the following principles, adopted chiefly from Byrom:

- 1st. Every simple sound in the language should have its proper character, which should be sufficiently distinct from all others.
- 2d. These characters should be the shortest and simplest marks in nature.
- 3d. Those marks which are shortest and most easily formed, should be assigned to the sounds which are of most frequent occurrence.
- 4th. The most frequent combinations of letters in speaking should consist of characters which will most readily join, or run into each other in forming these combinations.
- 5th. Such marks should be assigned to the letters, that, when joined together in words, they will not interfere with each other, or go much above or below the common line of writing.

6th. Those characters subject to be mistaken for each other, should represent letters of similar power.

147. No one of these principles is to be followed out exclusively. It is in giving to each its due weight that their excellence as a whole must consist. I have endeavored with patient labor to arrange the alphabet in accordance with them; and in prosecuting the system I have been guided by the considerations of legibility, brevity, beauty, and ease of attainment.

148. I claim as new in my system, 1st, The arrangement of the letters in more perfect accordance with the above principles; 2d, The arrangement of the different modes of expressing the vowels, whereby the precise sounds are shown in a short and plain manner; 3d, The half lettering; 4th, Merging unaccented vowels at the beginning and end of words; 5th, Manner of writing Initiants and Terminants; 6th, Merging l, n, r, s, and d, or reducing to a few simple rules the way of expressing two or three letters in one, by varying the thickness and length of the characters.

149. The foregoing, commencing at No. 142, is part of what was written many years ago as a Preface to my "System of Brevi-scription," previous to my entertaining the idea of the *Endeavor*. A few alterations have been made to bring it in more perfect unity with the forepart of the *Endeavor*, but I have not sought to change its particular adaptation to the English language rather than to universal Phonography.

150. Brief writing must eventually come into general use. Thousands will use it in their ordinary affairs where one will use it professionally as a reporter of debates. It is immensely more important to have a system adapted to the wants of the thousands and the millions, than to the few. My desire has been to fill both uses; but especially the great one, by furnishing a Writing, 1st, That shall contain a full alphabet, where every sound can be plainly written, and where no minute niceties of turns, or leaning, or lengths, or thicknesses are necessary to escape confusion, and consequently where any word whatever, when properly written, can be read with the utmost ease and certainty; 2d, That can be learnt without difficulty, and by a moderate amount of labor; 3d, That can be written with ease,—by which I mean that the letters and combinations shall follow the same order in writing as in speaking, and so obviously that no thought is required in the arrangement; 4th, That shall be fair in its appearance and lineality; 5th, And that shall be as brief as the foregoing requisites will allow.

151. The Reporting stage contains a few general rules by which

most of the words in our language can be shortened. Probably three-fourths of the words we use which contain three or four consonants, may be safely contracted by merging, where the writer has a fine pen and shows the swellings plainly. Tables of contracted words, and other appliances resorted to by reporters, will be needed; most of which, I presume, can be attached to my system as well as to any other. I am wholly unacquainted with the business of reporting; I have read no works on the subject, and leave this part of my system confessedly unfinished.

BRIEF VOWELS.

152. The short letters, their forms, and the manner of writing with them, have already been described under the head of Short Writing, beginning with No. 129 ; to which the reader is referred, as the remarks there made, with the exception of what is said of short vowels and of joining, will apply to brief writing also. Brief Consonants are the same as short ones, except that the loops are made small, that they may not be in the way of dotted vowels, and the strokes made long that dots can be written on them; and except duplicates, double letters, solid heads, substitutes, and contractions, as will hereafter be explained. See forward for table of Brief Consonants, No. 198.

153. The Brief Vowels bear some analogy to the short ones, but still they are quite different. We have two general methods of expressing them.

THE FIRST METHOD

Is by using the following brief vowel letters for the sounds in the words next them :

- eve,	c end,	/ all, on,	U ooze, full,	= due,
i in,	> are, at,	\ up,	= ice,	C out,
o aim,	c art,	u old,	o oil,	= use.

These brief vowels, when in words, are to be joined to the consonants they are next to, and all the letters of each word are to be joined together when practicable, excepting as will be shown.

154. Four of these vowels are straight marks. The first five crooked ones are half circles. The oo, i and u, differ from o, æ and â, in having their ends extended so as to bring them into something like an ox-bow shape. The oi and ou are more bellied than i and u, making three-fourths of a circle. The fourth vowel

(57)

(sound end,) is always written upwards. The sixth vowel, (sound art,) and $\subset$ *yu* are always written downwards. The other letters are written either end first according to circumstances.

155. These vowels, instead of being double the length of the consonants, as in short writing, are distinguished from them by being only a quarter or a third of their length. They are to be no longer than what is necessary to show their form and direction. The only way of distinguishing a long from a short vowel, is by swelling it. Accent, however, frequently determines the length, and this is marked by writing a dot close to the side of the accented vowel.

156.

EXAMPLES.

$\lceil$ or $\lceil$	eat,	$\lceil$	tame,	$\lceil$	ring,
$\lceil$	at,	$\lceil$	rat,	$\lceil$	wrong,
$\lceil$	ought,	$\lceil$	write,	$\lceil$	wrung,
$\lceil$	out,	$\lceil$	rot,	$\lceil$	rang,
$\lceil$ or $\lceil$	tea,	$\lceil$	wrought,	$\lceil$	seeing,
$\lceil$	tie,	$\lceil$	áccent,	$\lceil$	sighing,
$\lceil$	team,	$\lceil$	accént,	$\lceil$	sawing,
$\lceil$	feet,	$\lceil$	deer,	$\lceil$	various.

In accordance with strict phonography every long vowel should be swelled; but it is seldom necessary to do that. A swelled *i*, (perpendicular mark,) is $\bar{i}$, and is only to be used where the ends of the letters it joins are horizontal, as $\bar{i}$ green.

157. As respects the time spent in writing them, these little brief vowels are no shorter, or very little shorter than consonants; for the impulse guiding the fingers in forming one proceeds from the mind, and must have reference to the commencement, direction and ending, (length,) of the stroke; and all these things can be as quickly attended to in forming a mark the common length of a letter as in a shorter one.

158. Independently of size, the crooked vowels are distinguished from the consonants by a much greater curve. To guard further against mistaking straight vowels for consonants, they should be turned backward when it can conveniently be done; that is, the contrary way from which a consonant would be written, as $\lceil$ rib, and the words *feet* and *dear* above, No. 156. It may be

better in some instances even to make one consonant cross another than to write the vowel forward, as  fear,  leap,  war.

159. With the exception above, vowels must always be so written as not to interfere with the letters they are joined with; thus, in  due, the crook for the *u* is written upwards, in  tune it is written downwards. Where letters will not join in the usual way, one must be *joined on* to the other, as  *y*ota. An acute angle with a consonant is preferable to an obtuse one; thus  is to be preferred to .

160. There are a few occasions wherein a circular vowel must lean a little out of its erect position, as  test,  bear,  car; and a few where one arm of an ox-bow must extend a little farther than the other, as  suit. A circular vowel between two consonants should make an angle with one of them.

161. A straight vowel letter can generally be written before a looped consonant as well as before any other, as  rich,  brush. So can frequently a circular vowel, as  approach. A small loop can sometimes be turned inside, as  coach; otherwise the joining is inconvenient. It is better even to lift the pen and join on the looped letter, as , than not to make the word plain. But better ways of writing such cases will be shown.

162. It frequently happens that a straight mark vowel is to be joined to a consonant having the same direction. It will not do to denote a vowel by merely writing the consonant a little longer than usual; but if there is another consonant on the other side of the vowel, this case is easily and prettily disposed of by using this consonant to cut off the vowel from the other, as  near,  writ; , cross; , suffer. When there is no other consonant to make the separation, the vowel is written detached, No. 167, or by a dot.

163. It will readily be seen that, theoretically, all the crooked vowels, except *oi* and *ou*, will join without forming angles only to such ends of consonants as are either perpendicular or horizontal, as , , , , , , . A vowel thus joining a consonant without an angle is called a hook; and as it is easier to write a consonant and hook than to write the two letters with an angle between them, it is desirable to make as many of the circular vowels

hooks as we can; also to have a rule for ascertaining the particular vowel intended by a hook in case of doubt. Wherefore we make these rules in regard to consonants having oblique endings:

1st. Hooks on straight consonants, standing obliquely, are supposed to bend inwards a little, so as to make *more* than a half circle, as , fan; , fine; , sign; , race; , rays, or raise.

2d. Hooks being put on the concave side of circular consonants ending obliquely, are supposed to make *less* than a semicircle, as , cone; , lamb; , lime.

We are by no means constrained to use these rules; for we can write either  or  for might,  or  for news.

164. *Restrictions.*—Long hooks will be used to represent r, l, and -nt, under certain conditions, (Nos. 230, 234-5-6-7,) and to avoid clashing between them and the oxbows ī, ū and oo when hooks, observe, that except , written for yūn, (as in , unit,) and , yūs, (as in the word use,) no words are to commence with a long hooked vowel. The few words which might thus commence, are easily written some other way. In regard to words ending with long hooks see forward, No. 231.

165. The writing a knob on a vowel shows it to be a nasal sound, Example, , pin, [French];  or  dent, or dans;  dont; , aucun. In writing French it will probably be sufficient to signify the nasals, by simply swelling the simple vowels. The French û is this figure  or , and eu is .

166. In case a break is made in a word to prevent the last part of it going too far above or below the line, the parts must be connected by a double hyphen, as  confute.

LATERAL INSERTION OF VOWELS.

167. Generally it is easier, (more quickly done,) to write a word connectedly, according to the foregoing directions, than to separate the letters. But sometimes the joining is not convenient, or the appearance is awkward, or the exact figure or swelling of the vowel cannot be well shown; or the writing may be done in a hurry and the vowel omitted at the time, to be supplied afterwards. In such cases, or wherever desired, the vowel may be written separately,

and it is then called a *detached* vowel; but the consonants or other parts of the word must be joined.

168. If the vowel precedes the consonant, it is written before it; that is, near it, on the left hand side, if perpendicular or oblique, or if horizontal, under it, as v , oar; u , own. If it comes after the consonant, it is written on the other side, as r , row; u , no. The vowel coming between two consonants is either written after the first, as fate , or before the last, as fate ; or somewhere between the two, as pass . If two vowels come between two consonants, each vowel is written closely beside the consonant it is next to, as ruin .

169. The fourth sound is written like a diminutive r, (thus r), while the sixth sound is like a small g, (thus g .) If this sound is long, the upper part is swelled, as balm . The mark for the fifth sound when long is also swelled at top, as fair . The first part of the o may be swelled, but no harm if it is not. To designate the unaccented o and the stopt o, (No. 47,) let the right hand limb be swelled. This can easily be done by commencing the letter on the right hand side, and writing it backhanded, as whole ; hole . In the same way distinguish, when necessary, the two lengths of the tenth sound, as fool ; full . There are comparatively but few words where it will be necessary to show a vowel, (whether detached or not,) to be long by swelling it.

170. The oxbows for oi, ou and oo, are substituted by a cuspis, (spear point,) in the direction oi for oi, ou for ou, and oo for oo; as oil ; boy ; out ; fool ; full .

SECOND METHOD OF INDICATING VOWELS.

171. That end of a consonant which is first written, is called the head; even if, as may appear by the connection, it is written the reverse of the usual manner, as a I struck upward, still the end first written is the head of the letter; and the other end is called the foot. The left hand side, or if horizontal, the underside, is called the foreside; the other, the hind side.

172. A dotted vowel is said to be written *on* a consonant, or on the side of it, when the dot made for the vowel is written close up to, but not touching the side of the consonant. The consonants

of a word, (sometimes called the skeleton,) are first to be written, joined together, and the vowels are then dotted out on them.

173. There are reckoned five vowel places on each side of a consonant. The first, (or e's place,) is even with the head of the consonant, as ; the second, (a's place,) half way between the head and the middle, as ; the third, (i's place,) at the middle as ; the fourth, (o's place,) half way between the middle and foot, as ; and the fifth, (u's place,) even with the foot, as ; or, they may be called the vowels' first, second, third, fourth and fifth places.

174. A large dot always represents a long sound; a small dot a short sound. A vowel coming before a consonant is written on the fore side of it; coming after, it is written on the hind side; coming between two, it may be written on either, as is most convenient. When two vowels come between two consonants, each is written on the consonant next to it; or, if one only of the vowels is dotted, that one is read next to the consonant it is written on; and when two vowels are to be expressed on one side of a consonant, the dot for the vowel next the consonant is placed the closest to it; or the sound next the consonant is written by a dot, and the other by a vowel.

175. Accent is expressed by a small dot, placed on that side of the vowel dot which is opposite to the consonant. See examples in notation of sound 3 short, and sound 5 short. An accent dot is placed only against a vowel, or vowel dot. See latter part of No 155.

NOTATION OF THE DOTTED VOWELS.

176. Sound 1 long is written by a large dot in the e's place, as , eat; , tea; , we.

177. Sound 1st short, and sound 2d short, are written by a small dot in the e's place, as the first e in , secrete; , it;  or , pin.

178. Sound 3 long is written by a large dot in the a's place, as , ate or eight; , way or weigh.

179. Sound 3 short and sound 4 short are written by a small dot in the a's place, as , marine; , amend; , pen.

180. The diphthong i is written by a large dot in the i's place, as , ice; , life.

181. Sound 5 short is written by a small dot in the i's place, as $\dot{\text{I}}$, at; $\dot{\text{A}}$, áccent; $\dot{\text{E}}$, accént.

182. Sound 5 long cannot be written by a dot, so as to discriminate it from the short sound, but it must be made in one of the ways pointed out in the 1st method. No ambiguity, however, can arise by employing the small dot. *Fare* shortened up does not become *far*. Ask, fast, pant, &c., spoken quickly, are still the same words.

183. Sound 6 long and short, and sound 7 long, are to be written by the first method.

184. Sound 7 short is written by a small dot in the o's place, as $\dot{\text{O}}$, on; $\dot{\text{L}}$, lot.

185. Sound 8 long and short are written by a small dot in the u's place, as $\dot{\text{U}}$, fur; $\dot{\text{S}}$, sun.

186. Sound 9 long is written by a large dot in the o's place, as O , oak; G , go. This sound, unaccented, may be expressed in the same way; but to be precise, see No. 169.

187. Dipthong ū is written by a long dot in the u's place, as $\dot{\text{U}}$, tube.

Sounds 10 long and short, and dipthongs oi and ou, cannot be described by dots.

188. When, from the interference of letters, we cannot place a dot just where we would on one consonant, we can frequently do it on another. In writing *four* we have not room to place the dot in the proper place on the f, and so we put it on the r, thus $\text{f}\dot{\text{r}}$. A dot must never be used where a vowel's place cannot be plainly shown by it. Hence it must not be put in or near an angle where it can be read to either of the two consonants it is between, unless it makes the same letter on either, (as V). Nor must it be put near where two letters run together. Thus it cannot be told whether V is meant for born or burn. A detached vowel, instead of the dot, makes any such case plain. The vowel is but little harder to write than the dot; it requires no exactness as to its situation on the consonant, and its sound can be read independently of it.

189. Detached and dotted vowels written before the combinations for pr, dr and dc, No. 132, are read first, or before either of

the letters; when written after they are read last; written over pr and dr, and under dc, they are read between the letters, as Y upper; E , pure; Q , dike.

190. Several vowels and dots are used for words, as will be shown in the Table, No. 220. Any vowel sound which is to be noted separate from consonants, can be expressed by marking the vowel on the foreside of a solid headed h, (h) as h^{u} , oh, or owe; h^{a} , awe. Capital and abbreviation dots, (No. 136,) are put to the h: thus A. will be h^{a} .

OTHER MODES OF INDICATING VOWELS.

191. A vowel which would be expressed by a small dot, occurring between two consonants, may be denoted by commencing the consonant succeeding it in its place, as t^{u} , tin; t^{e} , ten; t^{a} , tan; t^{u} , tun; b^{u} , bud.

192. A large dot, coming between consonants, may be written in its proper place on the preceding consonant, and have the succeeding one projected from the dot, as t^{u} , time; t^{u} , keep.

193. The large dot will appear to be a head to the letter joining it. The head and stroke of a descending letter, (and of a horizontal one by turning the pen in the fingers a little,) may be made by the same effort. But the head of an ascending letter can only be swelled by a distinct effort. Thus, if the word four is to be written by this rule, the f is first written, then a large dot in the o's place; and lastly, without taking off the pen, the r is projected from the dot, (which then becomes a head,) thus f^{u} . If the succeeding letter is looped, the large dot is indicated by a swell on the back of the loop.

194. In expressing a vowel, according to the last two rules, it is desirable that the head of the indicating consonant should not necessarily be more than half a letter's length off from the vowel's proper place, and should either be on a level with it, as t^{u} take, or perpendicular to it, as t^{u} , mean. There are some cases where the indicating head cannot be brought up so close, and where too it would be desirable to avoid going so far below the line as would be done by joining the consonants and dotting the vowel. In such cases the vowel is best determined by the position which the following consonant holds with respect to the foot of the preceding

one. If the feet of the two consonants come together, it is a first place vowel; the head of the indicating consonant being swelled shows it to be long, not swelled, short, as $\searrow \text{f}$, feet; $\searrow \text{b}$, betray. The indicating consonant being lowered a fourth part of its length marks a vowel of the second place, as $\searrow \text{f}$, fate; lowered half its length, a vowel of the third place, $\searrow \text{f}$, fight. Still lower, a fourth place vowel, as $\searrow \text{f}$, got; and when the head of the indicating consonant is even with the foot of the other, a fifth place vowel is marked, as shown in No. 191.

195. When two vowels come together between consonants, the first may be dotted, and the last made by the next consonant, as $\text{r} \text{u} \text{i}$, ruin. Or show the first by commencing the next consonant in its place, and the other by writing or dotting it on the foreside of that consonant, as $\text{r} \text{u} \text{i}$, ruin. Or write the first vowel by the first method, and show the other by the head of the next consonant, as $\text{r} \text{u} \text{i}$, ruin. Still other ways are shown in other places. A detached or dotted vowel, written on a consonant, is always to be read next to it, although it comes between the consonant and a vowel that is made to join it, as $\text{c} \text{h}$, chaos, or $\text{c} \text{h}$, chaos.

196. Any word or writing can be done by means of the first method alone, and, with a few exceptions, it can be done by the second method alone. It is not intended that a writer shall in any case confine himself to either of them; but that he shall choose the best way of writing each word as it shall occur; having reference to clearness, to lineality, to the beauty of the writing, and to the time he can spare for it.

197. It is certainly easier, in most cases, to join in a vowel where it occurs in a word than to lift the pen and write a detached vowel, or a dot for it afterwards. But it will often happen that from carelessness, from a bad pen, or a dull pencil, these little marks will be blurred, or will not be formed with precision, or will come in an awkward place to join, or being straight marks, undetached and not written backhanded, they can only be distinguished from consonants by their lengths, thereby requiring care in this respect, in writing both the vowels and consonants. Hence it is frequently preferable, if not necessary, to write vowels detached, or by dots.

BRIEF CONSONANTS

198. Table of Brief Consonants, with the Roman printing letters answering to them annexed. (For the powers of these letters see Table No. 86, with the explanations following it. See also Plate No. 1.)

	p		t		k		hc
	b		d		g		
	m		n		ng		
	ph		th		ch		h
	vh		dh		gh		
	w				y		r
	f		s		sh		hl
	v		z		zh		l

199. Besides the above, which are all single consonants, we have five double ones, namely:

- or ch, as in *chip*,
- or j, as in *jet*,
- wh, (or hw,) as in *why*,
- x, or ex at the beginnings of words, and
- qu (or kw,) as in *quit*; and gu as in *anguish*.

200. It will be noticed that the brief letters v, z and zh, have no crooked arm at the top, as the short letters have, but are distinguished from their atonics simply by a more horizontal leaning. An additional character for z is the half length stroke. This is particularly useful at the ends of plural nouns and singular verbs. The y, sh, ch and j, have each two forms on account of facilities for joining with preceding letters; thus, *deh* requires the first and *tch* the second form of the ch. The x is a variation of the letters cs made half size, the figure being about the size and shape of an oxbow vowel. S preceding an x must be written upwards, as six; following it, downwards, as taxes. The qu is a half circle whose diameter is half the length of the letter .

201. To keep in line, d is written by its second form [J] downwards, as read; and for the same reason the | is sometimes written upwards, as , content. When t succeeds t or p, it may be substituted by the first or second form of d struck

upwards, as in the word  substitute. C, p and th may be written upwards, and even lean a little to the right by marking a cross on them, as , victim. As c and p are never to be written upwards without the cross, r and d may be safely put in their position, or nearly so, the r to make a better angle with a following p, and the d to show it to be put for t.

202. The  and  are always taken to be written downwards and  upwards, when it is not shown by their connection that they go the other way. Thus,  is see and not sue. In joining an o to an s thus unconnected, a first method vowel must be supplied, to prevent the word from being mistaken for a looped letter written the other way.

203. The letter ng is usually expressed by its proper character, the small circle, (o.) There are half a dozen or more words, with their derivations, which, when properly spelt, have ng for their first consonant; as ink is not pronounced in-k, but ing-k; angle is not an-gle, but ang-gle, the n, when followed by the sound of k or g, being changed into ng. And as the o does not admit of having dotted vowels written to it, these cases are managed by writing a first method vowel on the foreside of the o, and annexing the next consonant to the hind side, thus  ink. Such words will be plain enough, though not spelt right, if written with an —, as  ink.

204. As the little circle forming the loop of a letter, and the ng are the same figure, it will be necessary to bear in mind that every looped letter always commences with the loop. The pen commences to form the loop at that point where it makes an angle with the stem; and the stem is started tangentially from that portion of the loop which is last written. When the small circle is in any other position it is known to be ng; as when the pen is turned back in writing the next consonant, as in  Kingston. Here the figure of  is shown, but it is known not to be sh, because to write it according to the above direction we must join it to the preceding letter, thus,  or thus . Whether necessary or not, a consonant succeeding ng can be commenced in a straight direction from the center of the o, thus .

205. The o stands for *ing* when turned on the hind side of the straight stemmed letters; or the inside of the curve of the circu-

lars, and no vowel written, as  sting,  bring; also after a long vowel, as  staying. When any other vowel than the short *i* precedes the *ng*, it must be written by a vowel letter, as in examples to No. 156, or by a dot. The *o* unattached is *ing* together with the vowel indicated by its location, as  saying. (A plainer way has been taught, No. 156.) The *z*, (short *z*) may be added tangentially to an *ing* at the end of words, as  Kings. Two *ings* can be written together, as  bringing.

206. A  full size, can be added to *o* only where the pen is turned back, (No. 204,) as  drink. An easy way of writing *nk* is to make the circle, and then continue the pen round a little outside of it, as if commencing a spiral, thus forming a small , either upwards or downwards as the case may require: the short *i* is understood, as in No. 205, when another vowel is not written, as  think,  blank,  wrinkle. Also when *g* succeeds the sound of *ng*, let it be written by a spiral downwards in the position of , as  linger.

207. Instead of looped or open headed letters, solid heads are allowable when there is no joining to preceding letters, as  for *f*,  for *c*. They are written, (like crotchet-heads in music,) at once by a sudden bearing down of the pen, which, after a little practice, is performed quicker than by carrying the pen round in a circle. In joining to a preceding consonant it is always better to make the loop, as the whole is done with about as much ease with the loop as without it. For instance, this mark  can be made nearly as quick as this . If, however, the loop should be blurred into a solid head no harm is done.

208. As the looped letters are not formed so readily as the simple ones, there will be an advantage in substituting small detached angles for them in certain conditions. The mark  is the substitute for *h*,  for *y*,  for *wh*,  for *w*,  for *ch*,  for *j*,  for *th*, and  for *dh*. The necessary conditions are, that there must be a vowel which may be written by a dot intervening between the letter to be substituted and another consonant, so that the substitute can be written against the consonant in the vowel's place, and thus mark the vowel too. The part of the substitute nearest the consonant will show the precise place where the dot would be. The long sound is indicated by swelling one side of the substitute.

EXAMPLES.

heat,	hit,	hate,	hight,
wit,	wheat,	whit,	white,
yet,	cheap,	teeth,	nature.

As an angle is always placed so as to indicate a vowel or a consonant, it can thereby be told from a double vowel.

209. If a letter comes after a substitute, it is either joined to it or to the preceding consonant, as  or  riches. The > will do for ia at the end of words, as  Lydia.

210. The gain in speed by employing substitutes is in their indicating by their position the vowels next them. Their use will serve to keep in line such words as hope, both, thought, woful.

211. When the short i is followed by another vowel, the two making a diphthong, with the accent on a preceding sound, the i becomes practically a y, and is written by one, or by its substitute, as  or , trivial.

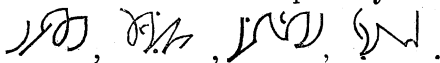
212. The sound following y being obscure, it will not generally be necessary to notice it; and the y can be written in with the skeleton of the word, as in the first trivial above. The exact sound, however, must be written in words which are uncommon, and words which are similar to others in sound, as  carious,  caries.

213. The unaccented yu in words ending in ual and uous is easiest written by  or its substitute, as  or  sensual.

ON KEEPING IN LINE.

214. The faint lines, if the paper is ruled, are the bottom lines of the writing, as in short writing. The sixth of an inch, or a little less above these, are the imaginary top lines of the writing. To maintain a good appearance it is desirable to keep within these bounds as much as possible. But in brief writing we can not always do so. There are many words, whereof some of the letters by their connection will be forced over the lines. Many consonants must transgress the half or the whole of their length, and there may be words, (I do not know that there are any such,) where it will be necessary to go two lengths. If all the consonants of the word *disordered* are stretched upwards, the last one will be five lengths above the upper line. *Predecessors* can also be drawn out five lengths, and *disregarded* four lengths. *Captivate*

will go four lengths below the lower line. These words are probably as difficult to write as any that can be found, but they can be folded in so as to look passably well, thus,



215. The first consonant of every word must always be within the lines; and if it is horizontal it must be written at the top or bottom, as will best suit the succeeding parts of the word. Thus, n in *⌣* will be on the top line, and in *⌣* on the bottom one.

216. Letters may occasionally be curtailed in length to help the appearance, as dr in *⌣*, and rd in *⌣*. He who wishes his writing to look well, will take pains to make it as straight and compact as is consistent with perfect legibility and plainness. The instructions which have been, and will be given, will be found to afford a great variety of ways for writing words. They should be well studied and attended to in selecting the best ways—the plainest and most lineal ways—of writing words, until the habit of writing them is formed; and then these best ways will suggest themselves to be used as a matter of course.

217. The foregoing is Breviscription free from all contractions and arbitrary marks. It establishes methods whereby the exact sound of every word in our language can be plainly shown. The scholar should practice a while before proceeding further, by writing sentences from a newspaper or book, and inserting all the vowels in each word, even those that are short and obscure, with the accent, punctuation, etc.; for although this minuteness need not be attended to in ordinary writing, yet it will often be necessary in some words, especially if in a foreign language.

RECORDING STAGE.—LETTERS STANDING FOR WORDS.

218. There are many little words which, from their frequent occurrence, it is very convenient to have some easy way of expressing. This is done by having a single letter or mark, when alone, represent a whole word. Such a letter is called a logogram, or word letter.

219. A letter may be written full sized, and half size; and in the latter case it can be put at the top or bottom line of writing; and if horizontal, it can be placed full size and half size at the top, middle, and bottom, and have each of these variations of size and position signify a different word. By these means and by the substitutes, No. 208, we are enabled to express upwards of sixty words by single characters.

220. The following table may be considered as an arbitrary application of particular letters, considered both as to size and their place on the line, to signify the words next to them. The bottom line of the words in print will show whether the short hand letters are on or above the line.

• a, an,	o among,	J had,	∪ God,
• period,	∪ Mr.,	- in,	∪ got,
o I, eye,	∪ himself,	- an,	∪ again,
= you,	∪ themselves,	= on,	∪ good,
= the, thee,	∪ we,	= not,	∪ give,
\ how, thou,	∪ with,	= no,	o thing,
∪ up,	∪ without,	∪ any,	> ye,
∪ perhaps,	∪ within,	∪ or. and,	∪ yet,
∪ be,	∪ would,	∪ &c.,	∪ your,
∪ by,	∪ was,	∪ into,	∪ she,
∪ but,	∪ were,	∪ under,	∪ shall,
∪ being,	∪ why,	o they,	∪ should,
∪ been,	∪ what,	∪ that,	> he,
∪ above,	∪ if,	∪ is his,	> who,
∪ below,	∪ of,	∪ as,	∪ has,
∪ before,	∪ have,	∪ so,	∪ however,
∪ behind,	∪ for,	∪ said,	∪ are,
∪ between,	∪ from,	∪ us,	∪ or,
∪ beyond,	∪ very,	∪ this,	∪ her,
∪ about,	∪ ever,	> these,	∪ will,
∪ him,	∪ after,	y those,	∪ all,
∪ am,	- it,	p through,	∪ Lord,
∪ them,	- at,	e the ^{re} , _{ir} ,	∪ along,
∪ me,	- to,	∪ could,	∪ each,
∪ may,	∪ together,	∪ according,	∪ church,
∪ my,	∪ do,	∪ can,	< which,
∪ might,	∪ did,	∪ cannot,	∪ judge,
∪ many,	∪ does,	c question,	∪ except.

SUNDRY CONTRACTIONS.

221. Many obscure and unaccented vowels which do not begin or end words, may be omitted without the least detriment to the legibility, as , or , difr, (differ.)  dfur, (defer.) It is generally safe to omit such as must be spoken; for example, the Italic letters in retain, defect, conclude, mountain, parent, majority. Where the rest of the word can be spoken without it, and especially if by suppressing it another word is made, it must be written; as the vowel between n and l in finally, which, if omitted, would make finely, and the u in support.

222. A short vowel beginning a word, is shown by writing the first consonant half length; as  intend,  appear.

223. The short y at the end of words, is shown by writing the last consonant half length; as  scenery,  duly,  Friday,  city.

These half length letters will admit a short / after them for the plural, as  insanities.

224. A slight distinction might be made in the leaning between the short z and half length s, (cy,) of the above rule, as  fans,  fancy; but it is better to write the cy in full. 'Cies can be written with two short s'es, and  fancies.

It is of importance to have an easy and obvious distinction between s and z, and this is effected much more readily and certainly by writing the z half length than by its leaning.

225. The half of any quarter circle letter, except  and , may be left off, when by doing so it will run into another letter, or have another letter run into it without forming an angle, as , form. Here, by leaving off the last part of the r we make it run into the m, and thus save an angle. Other examples,  filled,  advised,  gleam,  mingled.

226. If vowels come before or after letters connected by halving, write them by first method vowels either joined or detached, or by dots on the consonants before or after. Vowel sounds coming between such letters, are written plainest by detached vowels placed near the head of the first, or foot of the last. But when such vowels are expressed by dots, the first three places on the

combined character, belong to the first, and the last two to the last letter. Examples:  wrist,  rest,  roast,  guile,  goal,  glow. The vowel is always taken to be on the last letter, when it is indicated by the head of a succeeding consonant, as,  remember.

227. In a few combinations a little deviation from the natural position of a half letter is advisable, that the compound character may not so easily be mistaken for a single letter. Rs is made thus , ds thus , ct , sd . As the combinations for ds and rs will be much used, it is well to state that the sound *c* (*ar*,) does not come before *s* in English; hence no harm can arise from writing ds a little hooked, thus ; and as there are but few words in which *os* occurs where these letters can be written , it is better always to write them thus , and a hooked rs thus  will then be plain. Dz and rz ending words are written as in  words, and  pillars.

228. A *d* may be added to *d* by continuing the circle further round, as  ended. In writing *sr* (connected with other letters,) let the *s* part be made pretty straight up, as  answer.

229. Similar to the above half lettering, and with similar dispositions of vowels coming between the letters, are the following contractions:  sh'r,  sh'd, and  y'r.

230. A word ending in *nt* may have these letters designated by a hook made too long for a vowel, on the preceding consonant; on the foreside if straight, or on the inside of the curve if circular, as  faint,  dependent.

231. The placing the hook for 'nt on the *fore* side of a straight letter prevents it from being confounded with an ox-bow vowel. Example:  advent,  defy. But where the 'nt is put on a circular consonant it must be on the same side as the hooked vowel; and it may be said that to write a hook a trifle longer for 'nt does not sufficiently discriminate it. True, it does not; but it will seldom happen that both ways of reading it will make English words, or if so, that the connection will allow more than one of the words to make sense. Writing a vowel before 'nt will always determine the case; and where this is done no harm can arise by turning the hook for 'nt on the hind side of a straight consonant,

or by making the hook a short one. Examples:  intent,  my,  meant.

232. A dotted vowel is not read to a hook, and therefore may be put outside of it, and still be read to the consonant, as  blunt.

233. A z or s is added to the 'nt by turning the hook inward so as to touch the consonant, as  comments. This will also serve for -nce; so that, by changing the accent in the last example to the second syllable, thus , it will stand either for comments or commence:  evidence. D instead of s is indicated by carrying the mark through the consonant, as  painted: ing is added to the hook by turning a small loop inside of it, as  painting. A z may be added to -nce, as  evidences.

234. The ending -nd instead of -nt is shown by writing the consonant the hook is on half length. The hook, too, must be made small, so that when looped for s, it may not reach the fore end of the consonant. Examples:  m'nd,  minds,  d'f'nd'd. A fine pen is required for such little marks. When there is time and room enough, the plain way of writing these endings is much the best.

235. A long hook *commencing a word and written on the foreside of p, b, f, v and t, and the concave side of c, g, l and q, signifies r; written on the hind side of f, v, and t, it signifies l. Examples:  refer,  return,  relent,  write,  light.

236. M and the hook prefixed signify cm, as  command. This hook represents a small c written upwards.

237. N and the hook prefixed, thus , is cn; (generally con-). This way of writing cn is not preferred to the regular  on account of being shorter, but it is to be used on account of lineality, where, as is generally the case, a succeeding consonant has a downward direction, as  convey.

238. An r written downwards, (being joined to other letters to show that it is,) is ar, as  arm. T and c are added to a downward r by half lettering, as  mark.

* The suggestion of these hooks, as well as several other matters, is from *Pitman's Phonography*.

INITIANTS AND TERMIANTS.

239. An Initiant is a letter made to represent several letters at the commencement of a word, by terminating its end in, or drawing it through the side of the letter it is joined to. Written the first way, v stands for over-, t for trans-, n for inter- or intro-, and s for super-. When drawn through, n stands for under- and s for circum-.

EXAMPLES.

 overturn,	 transfer,	 superfine,
 understand,	 introduce,	 interview,
 undertake,	 entertain,	 circumscribe.

240. A Termiant is a letter made to stand for several letters at the end of a word, by commencing it in, or drawing it through the side of the preceding consonant. In the first way, b stands for -ble, b half size for -bly, the foot of the b being lengthened for -bility, m (after a hook,) for -ment, s for -self, s double length for -selves, l for -shal or -cial, l half size for cially. When drawn through, n is -xion or -ction, s is -soever or -city, or -citude, and l is for -lity.

EXAMPLES.

 possible,	 possibly,	 himself,
 contentment,	 infection,	 introduction.

 is shus (-cious,) and  is yus (-ious.) They are joined in the usual way, their tails being made a little longer than for sh and y.

241. -Ct is indicated by joining a short mark to the foreside of the letter preceding it, as  inspect. This is not a contraction, but is intended to save the unsightly appearance of going over the line of writing. It is not necessary that the mark should be horizontal, and it may pass through the letter it is written on, forming one on the other side, as  respects,  respected,  respective.

242. -Tion is denoted by writing an  half length, and -tions by writing it full length, backhanded on a foregoing letter, as  motion,  motions. The plural, however, may be made by z if preferred, as  confessions. If the mark for -tion or -tions cannot be written backhanded, write it as a terminant, as  sedition. Also if a letter follows it, as  additional. At the end of a horizontal letter -tion is best written by curving the end up, thus  invention.

of, for the sake of, or it was caused by, occasioned by, originated in, &c. Cn would be *consequence*, as *in consequence of, hence it happened, &c.* Q *quantity*, either with respect to time, distance, number or magnitude; the bigness of the character to be proportioned to the length of time, distance, &c. Ql *quantulum*, the reverse of the foregoing. Ns, *necessity*, as *It is necessary that —, the matter cannot be avoided —, we, he, &c., must, shall be obliged to —, &c.* In the same way, Pr, *probability*, Ps, *possibility*, S, *similarity*, G, *agreement*, P, *opposition*, D, *advantage*, R, *reference*. Such adverbial and sentential contractions may be carried to almost any extent. To be of use they must not only be fixed in the memory, but so familiar as instantly to present themselves whenever needed.

COMPARISON OF MR. ISAAC PITMAN'S PHONOGRAPHY WITH MINE.

266. Mr. Pitman uses hooks, small half circles and angles, large and small dots, thick and thin dashes, and half length and double length, and swelled consonants. In my reporting stage I use all these means too. Our systems being on a par in these respects, it may be desirable to compare them in regard to brevity, appearance, accuracy, &c. The American Manual of Phonography, published by the Brothers Longley, of Cincinnati, contains the American Declaration of Independence, written by Pitman's System. In Plate No. 4 of this work I have inserted as much of the Declaration as will go into it. In Mr. Pitman's system the vowels are all written separate from the consonants. They can all be so written in mine, too; but I have joined in some with the consonants, as being an easier and better way of expressing them.